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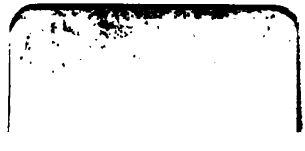

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THE

SYDENHAM SOCIETY

INSTITUTED

MDCCCXLIII

LONDON

MDCCCXLVIII

THE WORKS

OF

THOMAS SYDENHAM, M.D.

TRANSLATED FROM THE

LATIN EDITION OF DR. GREENHILL

WITH

A LIFE OF THE AUTHOR

BY

R. G. LATHAM, M.D.

ETC. ETC. ETC.

IN TWO VOLUMES

VOL. I.

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TRANSLATOR'S PREFACE.

THE present translation is from the text of Dr. GREENHILL'S edition; a work of great care and accuracy, and one from which the notes and indices have supplied the present writer with an amount of information that has materially lightened his labour.

The latitude that he has allowed himself in rendering the Latin of the original into equivalent English may, to some, appear considerable: nevertheless, it is considered not to exceed the average latitude recognised by the translators of long works. This permits the breaking up of long and compound periods, the fusion of many simple sentences into a few complex ones, the conversion of parenthetic observations into independent sentences, transpositions, and similar licences. But it does not admit misrepresentations, omissions, or additions.

It may be necessary to suggest to the reader that, although the Latin style of the works of Sydenham is highly valued, and, with the single fault of being somewhat too studiously idiomatic, is altogether worthy both of its subject and its author, it is far from improbable that the English equivalent may disappoint such readers as are prepared, or over-prepared, with their admiration. Now the responsibility for any difference between the merits of our author in his original garb and his English dress lies only partially with the translator. That some of it lies with him, it is unnecessary to affirm. Some, however, is attributable to another cause. There is one style for the Latin writer of Rome, and another for the English writer of Great

Britain. Neither of them, however, is the style of the Englishman who writes Latin. In this latter case the sense is almost always, in some degree, sacrificed to the expression; the question being not so much *what to say*, as *how to say it*. Hence unimportant matters are expanded into well-rounded sentences, ideas are introduced simply for the sake of the metaphor, quotation, or idiom, that shall embody them, and words, and clauses, find their way into sentences, not because they are wanted, but because they are classical. Sydenham, for instance, is rarely content to say that his patient *died*. He says, *ivit ad plures*; literally, *he went over to the majority*. Expressions like these can rarely be rendered by exact equivalents; yet it is to expressions like these that the original Latin owes much of its Latinity.

The main difficulty, however, is this:—viz. that when the idea of a writer of modern Latin has been expanded into its Latin form, it often shrinks and looks small when retranslated into English. Any one may verify this by translating a sentence of any classical modern antique, e. g. Parr's Preface to Bellendenus. Virtually, the present work is the *re*-translation (or rather *retro*-translation) of a translation; a fact of which the reader should be reminded, since the version of bulky works in modern Latin, sufficiently modern to suggest the sacrifice of matter to manner, and sufficiently classical to claim attention on the score of style only, has been too unfrequent to make the necessary allowances in the matter of criticism fairly understood, and generally admitted.

At first sight all this may appear to constitute a reason for departing somewhat widely from the original, and for *not* following it in its sacrifices to a classical form of expression; for keeping to the exposition of the matter only, and being satisfied with giving the observations and opinions of Sydenham irrespective of the form in which they are embodied. Now, if the publication of an English Sydenham, by a Society bearing his name, and with which he is pre-eminently *classical*, had been undertaken

with no other view than that of giving the results of his experience and reflection in a simply *historical* form, a mere general accuracy would have been sufficient, and the translator might have looked only to putting his book in the most readable form possible. I fear, however, that, in the present instance, scholars, at least, will (subject to the latitude indicated above) expect *verbal* as well as *material* closeness; since Sydenham in an English dress is a fact, not merely in medicine, but in medical literature as well. It was a decided opinion upon this point, combined with the fact of the previous versions of Peachey and Swann, representing in point of style and language neither the English of Sydenham's time, nor that of our own (whilst they were as little remarkable for beauty of style, as for fidelity of representation), that determined the Society upon preferring a full and fresh translation *in toto*, to a modification of either of the earlier English ones.

In respect to the translation of the names of the different articles of Sydenham's Pharmacopœia, I have generally taken the English synonyms from Lewis's translation of an old Edinburgh Pharmacopœia, and from Peachey's English translation, checked by reference to either Gerard's Herbal, or Nemnich's Polyglot Vocabulary of the Terms used in Natural History. All four sources, however, must be used with caution, and that for the following reason. The tendency of writers who undertake to render into their own tongue the specific and scientific names of such botanical, mineralogical, or zoological objects as occur in their original authors, to translate the Latin term verbally rather than really, is almost universal. Yet the difference is broad; and a little consideration may show that a *name in English* is frequently a very different thing from an *English name*. Out of the four English species of the genus *Bupleurum*, three are more or less narrow-leaved, and, as such, with leaves capable of being compared to a *hare's ear*. Indeed (some or

all) they are so compared, and the term *hare's ear* has really been given to one (or more) of the species, viz. *odontites*, *tenuissimum*, and *falcatum*. But the botanical translation of

Bupleurum odontites, as *narrow-leaved hare's ear*;
„ *tenuissimum*, as *slender hare's ear*;
„ *falcatum*, as *falcate hare's ear*,

constitutes terms that were, perhaps, never applied to any one of the three species, except as renderings of the name in Latin, and are anything but English names in the common acceptation of the word. Furthermore, the fourth species, *Bupleurum rotundifolium*, is also called *common hare's ear*; and here the name is not only no name, but an impossible one. The round-leaved *bupleurum* has, in the very fact which makes its Latin name (*rotundifolium*) applicable, a condition incompatible with the term *hare's ear*. With this view, I have given the proper current idiomatic English name whenever I have been able to discover what it was; and when I have not done so, I have preferred letting the Latin stand, to rendering it by a mere verbal translation. This is only an extension of the principle by which we say *aqua vitæ*, or *lignum vitæ*, instead of *water of life*, or *wood of life*. In other words, the Latin term is naturalized.

What has just preceded applies to the identification of the English *name of the particular species* of plant or animal with the Latin one. The identification of the *species itself* is a different question. It is one thing to know that the *Artemisia abrotanum* of Linnæus is the *southernwood* of the common people of England. It is another thing to know that the *abrotanum* of Sydenham is the *Artemisia abrotanum* of Linnæus. Now, in respect to all such questions as the last, I have taken the genera and species as I found them in Dr. Greenhill's Index, and that with an additional confidence, from the fact of its having been benefited by the assistance of Drs. Pereira and Royle.

The plan of the preliminary explanations headed *Materia Medica and Therapeutics* is as follows:—where a simple term of Sydenham's occurs in the present Pharmacopœia no notice is taken of it at all, e. g., *chamomile, aniseed, dill, cloves, bark,* &c. Nor yet is any notice taken of those *preparations* of which the chief *constituent* is denoted by the name, e. g., *strawberry-water, emplastrum de minio.* This rule is held to even where the preparations are exceedingly compound. On the other hand, where a simple term does *not* occur in the present pharmacopœia, its scientific botanical, zoological, or mineralogical synonym is supplied, (e. g., *adderstongue, anagallis,* &c.); whilst in respect to *preparations* of which the composition is not at all indicated by the name, the formula from one of the Pharmacopœias of the time is given in detail; the arrangement of the whole being strictly alphabetic.

To have gone farther, and, by a second series of notices, to have explained all the new terms that were thus added from the Pharmacopœias to the list found in Sydenham, would have carried me beyond the prescribed limits of my work. In some cases, too, I have been obliged to sacrifice absolute accuracy to precision, e. g., the *white* sandal-wood, or the *young* wood, the yellow sandal-wood, or the *old* wood of the *Santalum myrtifolium,* and the *red* sanders-wood of the *Pterocarpus draco,* are occasionally spoken of as the *sandal-wood of the three kinds* (*santalum trium generum*). It is better to take expressions like these as we find them, than to refine upon them by over-accuracy.

In respect to the extent to which I have remembered that the original Sydenham was written in the seventeenth, rather than that the translator is writing in the nineteenth century, in other words, the degree whereto I have thought myself bound to attempt, by any archaic forms of expression, the difficult task of reconstituting Sydenham in what may be supposed

to have been the form in which he would have originally appeared (had it appeared in English at all), during the lifetime of the author, I have only to state that I have limited myself to the avoidance *of impossible words*, i. e., of words which, under no circumstances whatever, could have been used in the time of Charles II. This, whilst it leaves me at liberty to render *coctio* by the word *digestion*, forbids me to translate *calomelas* by such a term as *chloride of mercury*. That good reasons for going farther in this direction, and reviving much antiquated phraseology, with the view of exhibiting Sydenham, not as he was, but as he might have been, may be given, is a fact that neither the Society nor the translator have attempted to conceal from themselves; on the other hand, they remember that the style of the seventeenth century in general is by no means necessarily equivalent to the style of Sydenham in particular, and that the *best* authors contemporary with Sydenham write whole pages together without exhibiting any material points of difference between their style and the style of the present half century, except, perhaps, as with the magnificent prose of Dryden, in being better compositions.

R. G. L.

THE

LIFE OF SYDENHAM.

Not only is the name of Sydenham better known than his writings, but his writings are better known than the events of his life; indeed, we may safely say, that concerning no author, equally eminent and equally recent, is the personal information so fragmentary, so apocryphal, and so unsatisfactory, as that concerning the so-called Father of English Medicine. To judge from his printed works, from the early influence of his name, from the continuous character of his reputation, and from his prominence in the history of medicine, we should pronounce him not so much to have belonged to the number of those skilful and sagacious men whose authority is recognised without being ostensibly proclaimed, whose opinions work their way gradually and clandestinely, although with certainty, and who, after passing a life of useful obscurity, emerge into the posthumous splendour of a late reputation, as to have found his place in that different order of innovators who attract attention during their lifetimes as much as they command imitation after their deaths, who stand conspicuous by salient points of individual character, and who run far greater risk of having the smallest details of their conduct or misconduct recorded with officious minuteness, than of leaving the world, like the great men who lived before Agamemnon, unchronicled and unknown.

Yet such is far from being the case. The dearth of facts connected with the life of Sydenham has been the complaint of each and all his biographers; and when Dr. Lettsom remarks

that Sydenham's biography "scarcely enlarges beyond the information that he was a soldier; that he told Sir R. Blackmore, who inquired of him the best books to study in order to acquire medical knowledge, to peruse Don Quixote; that he pursued some short studies; and that he died a martyr to the gout," we have, contained in a single sentence, not only the expression of regret on the part of the writer, but wellnigh the whole biography itself.

Generally speaking, however, this scantiness of personal history is a matter of regret rather than of surprise; being too common a phenomenon in literary history to excite astonishment. Biographies, after the type and fashion of Boswell, where an unreasonable admiration is superadded to an indiscriminate appetite for anecdote, and where the result is the production of an excellent book by an indifferent author, constitute the green and pleasant spots in the vast area of biographical investigation. But in opposition to these abundant and overflowing sources, there is the other extreme of absolute sterility; and there is, of course, every intermediate degree. There are insignificant works whose authors are known to us even to the folds of their garment, and there are imperishable and gigantic monuments of genius, whose creators have yet to be delineated, even in a dim and indistinct outline. As little is known of the personality of Shakespeare as of Sydenham, and as little of Sydenham's as of Shakespeare's. Both agree in speaking to posterity through their writings only, and of being measured by posterity by the influence of those writings. With few and unimportant exceptions, all that is known in the present century concerning Shakespeare, was known to his earliest commentators. The life by Rowe is like the single sentence of Dr. Lettsom. It is a short story, but it is the whole story.

Magnæ stant nominis umbræ. This oft-applied quotation is generally attached to the names of the doers of great deeds, or the thinkers of great thoughts, who have lived and

died in some remote age, and in the infancy of history; in times anterior to the biographer that describes, or to the poet that immortalises. Nevertheless, in the two cases before us, it applies to prominent characters in a late period, to men who were the centres of observant circles, within a few generations of the present time, within a period that we may call not only *historical* but *recent*. At times, indeed, the nature of the subject has the same effect with length of time in throwing the veil of uncertainty over the acts and motives of individuals. Events that occur clandestinely at a late period, are as much mysteries to posterity as are the events that take place openly at an over-early one. It is unfortunate, however, for the biographer when the two elements of uncertainty combine. And they do so in the object of the present memoir. Of the real Sydenham, who all his life lived in the open light of day, and in places as little retired as Oxford and London, we know as little as if he had been a recluse in an age of literature, or a prominent character in an incurious one.

* * * * *

The Sydenhams, an ancient family, divided into many branches, were originally, i. e. in the time of King John, seated at Sydenham, near Bridgewater. Hence descended the principal branch of Comb Sydenham and Brimpton, which was extinct in Sir Philip Sydenham, Bart., who alienated his estate, and died in 1739.

From one of the earlier members of this branch issued the families of the Sydenhams of Badelton, Comb, Orchard, Chellworth, Leigh, *Aller*, Langford, Whetstow, and Dulverton, all in the county of Somerset. Richard de Sydenham, of Comb Sydenham, was Justice of the Common Pleas in the eleventh year of Richard the Second. His second son, Simon, was Archdeacon of Sarum and Berks, then Dean of Sarum, and, finally, Bishop of Chichester, in 1403.[1] Such is the pedigree

[1] Hutchins's History of Dorsetshire.

of the family in its earlier history, as drawn up by William Riley Norroy, about 1656, from the registers in the Office of Arms, and documents in the Tower.

It was, however, the Dorsetshire branch of which the physician and his brother were the most remarkable scions; and the founder of this was Thomas, the third son of Richard Sydenham of Aller. In the thirty-sixth year of Henry VIII, he purchased an estate and manorial rights in Winford Eagle, Dorsetshire, of John Zouch, of the family of the Zouches of Harringworth, in Northamptonshire, into whose hands it had come, in the reign of Henry V, from the St. Maurs. The next year he purchased, for £4 3*s*., a farm and manor belonging to the Abbey of Cerne, which had been granted the previous year to Richard Buckland, and Robert Horner. He is mentioned again, in the reign of Queen Elizabeth, as being the possessor of a park called *Winford*, or *Sydenhams*, to the extent of 160 acres, and also as being the grantee of 600 acres of sheep-pasture. On the other hand, he has a licence to alienate the lands called *Shapcomb*, *Dyers*, and *Little Westwood*, to Bernard Golde and his heirs; value £7 5*s*. 4½*d*.

From this, Thomas Sydenham, the physician, was the fourth in descent. His paternal grandmother was Elizabeth, daughter of Thomas Fulford, of the Fulfords of Devonshire, but possessed of property in Dorsetshire also. His mother was Mary, daughter of John Geffery of Catherstone. Three sisters, Mary, Elizabeth, and Martha, and two brothers, William and Francis, are named in the pedigree; but, besides these, I find from the Register of Baptisms, the following entries of (apparently) other sons of William Sydenham: John, 1621; John, 1626; George, 1629; Nathaniel, 1630; Richard, 1634. The marriage of Sydenham's father took place in 1611.

Such are the illustrations of Sydenham's extraction as taken from Hutchins's History of Dorsetshire, and which have been checked by the comparison of a MS. pedigree with which I

have been favoured by the courtesy of the Rev. B. Byam, and by a MS. from the Library of Caius College, sent to me by Dr. Paget. Nevertheless, they are by no means free from numerous, although unimportant, elements of confusion, arising, in some cases, from the identity of Christian names, in others, from discrepancies in date, between the genealogy in its tabular form and the parish registers, as extracted in the County History. The most that can be said of them, as biographical *data*, is, that they supply an expansion and verification of the statement which appears so regularly at the head of all the biographies of Sydenham, viz. that he was of a good family. He was so: but he was, at the same time, with the exception of his brother, the first member of it who was known beyond the pale of its provincial respectability. The same neighbourhood that produced Sydenham had, a few years before, produced Glisson, who was born at Rampisham, near Winford Eagle.

Sydenham himself was born at Winford Eagle, in 1624, and this is all that is known of him for the next eighteen years. Where he was educated, and what mental characteristics he exhibited, either as boy or youth, yet remain to be discovered. It may, however, clear our views for certain forthcoming investigations to remember that, from the condition of the family, on the one side, and from the ability of Sydenham, on the other, there is every reason for believing that he had a good education, and that, in one way or other, he availed himself of it.

The external evidence respecting the extent to which Sydenham is entitled to the reputation of a good Latin writer, as well to that of a sagacious and independent observer of Nature, is so scanty and unsatisfactory, that when we come to the consideration of the authorship in their Latin form of the *Opera Sydenhami*, we must eke out our argument with *à priori* probabilities as to his opportunities for acquiring classical learning, and the likelihood of his not neglecting them. Hence it is

right to inquire how far it is as likely that Sydenham went to Oxford with the elements of a good Latin style, as that he did not. The absolute fact, however, remains to be determined; so does the name of the master or tutor under—or in spite of—whose instructions his mind developed its sagacious and characteristic activity.

In 1642, at the age of eighteen, he was entered as a commoner of Magdalen Hall, Oxford.

That he left Oxford very soon after his entrance, is certain. It is also nearly certain that he left it for military service; and that on the side of the Parliamentarians. Here, however, there are elements of doubt; first, as to the extent to which Sydenham served as a Parliamentarian soldier; secondly, as to the fact of his having served at all.

I shall first notice the evidence that creates a presumption in favour of his having done so.

The general temper of his native neighbourhood and county was Parliamentarian. Clarendon speaks in strong terms of the disaffection of Dorsetshire.

His brothers were both Parliamentarians. The position of William Sydenham, both as a Parliamentarian soldier, and a Parliamentarian commissioner, is of a sufficient importance to have given him an historical prominence, and numerous notices of his services to the Commonwealth are to be found in Whitelock. When his brother entered at Magdalen Hall, William was a gentleman commoner at Trinity College, in the same University.

Of Francis Sydenham, a Parliamentarian soldier also, the career was less conspicuous. He is mentioned by Hutchins as having been killed in the year 1644.

In the same year with her son Francis, the *mother* of Sydenham was killed. In November 1644, Sir Lewis Dives was beaten, at Poole, by *Major* Sydenham. "At the third charge, seeing at the head of the King's troops Major Williams,

who had *formerly* killed his (Sydenham's) mother, he came up to him, slew him, and put his men to flight, driving them through the town." By *Major* Sydenham is meant Francis, William Sydenham having, at the time in question, the rank of Colonel. The word *formerly* means *a few months* before. That she and her son Francis died within the same year, is proved from the Register of Burials at Winford Eagle, where we have the following entries: "Mary, wife of William Sydenham, Esq., 1644, and Major Francis Sydenham, son of William Sydenham, Esq., killed in the civil wars." Francis Sydenham is also, most probably, the *Captain* Sydenham who was active in preventing the relief of Wareham towards the end of 1643. In the July of 1644, both the brothers are mentioned, i. e. as Colonel and Major Sydenham, who relieved Wareham, then besieged by the king's troops; who took sixty horse, and one hundred and sixty prisoners, and who hanged seven Irishmen. Although it is difficult to conjecture the exact nature of the casualty by which a female, in the condition of Mrs. Sydenham, could lose her life at the hands of soldiers, it is easy to believe, from the disturbed state of the whole of Dorsetshire, and from the activity of at least two of her sons, that the occasions of such casualties were frequent; and it is very likely that the hanging of the seven Irishmen had some connexion with the one in question.

In the way of cumulative evidence as to the activity of the Sydenham connexion in the cause of the Parliament, it may be added, that the family into which William Sydenham had married, the Trenchards of Warmwell, were also Parliamentarian. On August 10, 1642, there was borrowed for the service of the Parliament, the sum of £1300, at 8 *per cent.*, of John Fitzjames, Esq., for which sum Sir Thomas Trenchard was one of the securities. As it is the opinion of the present writer that the exclusion of Sydenham from the honours of a Fellowship of the College of Physicians, the subject of many

ill-considered remarks, is quite as referable to his republican politics as to the jealousy of his professional brethren, the above-mentioned facts have been put forward in prominent relief.

In regard to the fact of Sydenham having served as a soldier, they constitute only a presumptive kind of evidence. The particular statements that strengthen the inference which they originate, are as follows:

1. *Sydenham's mention of himself.*—This is, that in the year 1646 he was on his way to Oxford, from which place he had been kept away some years by the calamities of the civil war—*a quo* (*Oxonio sc.*) *primi belli calamitas me aliquot annos distinuerat.* Upon the principle of taking all expressions and sentences as we find them, that is, according to their plain, literal, and grammatical sense, the words *aliquot annos* must mean *more than two years, and fewer than three and a half,* in other words, some space of time between the Midsummer of 1642, when he entered at Oxford, and the end of 1646, the latest period at which he could have revisited it.

2. *The expression of Sir Richard Blackmore.*—Sir Richard Blackmore writes, that Sydenham "became an able and eminent physician, though he never designed to take up the profession till the civil wars were composed; and then, *being a disbanded officer,* he entered upon it for a maintenance, and without any learning properly preparatory for the undertaking of it." Now, this statement must be considered as a separate substantive assertion of Sir Richard's, and not as a mere expansion of a passage, which will hereafter be given in full, of Sydenham's own. All that is there said by Sydenham is, that his studies had been interrupted, and that he had grown to man's estate without having fixed on a profession.

3. *The statement of Antony Wood.*—This is, that Sydenham "left Oxon, whilst it was a garrison for his Majesty's use, and *did not bear arms for him* as the other scholars then and there did." Upon this statement, however, it should be

observed, that it is something more than merely negative, and that it tells the other way. Had Wood known that Sydenham had borne arms for the Commonwealth, he would, I think, have mentioned it.

4. *Dr. Lettsom's anecdote.*—The following anecdote of Sydenham the soldier was communicated to the Gentleman's Magazine, of August 1801, by Dr. Lettsom. It was copied from the fly-leaf of a copy of the *Methodus curandi febres*, which had been in the possession of Dr. Sherson's[1] family for upwards of fifty years—"Dr. Thos. Sydenham was an actor in the late civil war, and discharged the office of captain. He being in his lodgings in London, and going to bed at night with his clothes loosed, a mad drunken fellow, a soldier, likewise in the same lodging, entered his room, with one hand griping him by the breast of his shirt, with the other discharged a loaded pistol into his bosom; yet, O strange! without any hurt to him. Most wonderful, indeed! by such a narrow shield as the edge of the soldier's hand, was his breast defended. For the admirable providence of God placed and fixed the tottering hand that griped the shirt into that place and posture, that the edge thereof and all the bones of the metacarpus were situate in a right line betwixt the mouth of the pistol and his breast; and so the bullet discharged neither declining to the one side or the other, but keeping its way through all the bones, in crushing them lost its force, and fell at his feet. So wonderful a situation of the hand, and more wonderful course of the bullet, by any industry or art never again imaginable! The soldier died soon after. Surely Providence does not bring forth such stupendous miracles but for some great and equivalent end."

The whole, however, of the scanty evidence relating to this portion of Sydenham's life, will not have been exhausted until we have considered the account which he gives of himself for A. D. 1645. For this year we have a few sentences from the

[1] Gentleman's Magazine, Dec. 1801.

Dedication of the third edition of Sydenham's Methodus (now called Observationes Medicæ), from which we collect the few fragments of definite biography which we possess. It is from these sentences that the previous extract, respecting the interruption of Sydenham's Oxford studies, was taken. Premising that the date of the Dedication is 1675, I give the extract in full:

"Tricesimus jam agitur annus a quo Londinum petens ut inde Oxonium denuo proficiscerer, (a quo primi belli calamitas me ad annos aliquot distinuerat,) in virum doctissimum et maxime ingenuum Dominum Doctorem Thomam Coxe, (qui per eos etiam annos, atque ad hunc usque diem medicinam magna cum celebritate factitavit,) fratri meo tunc ægrotanti consulentem, auspicato inciderem; qui quidem vir, pro nota sua humanitate suavitateque morum, me percontatus est, cui me demum arti; intercisa jam repetens studia, sumptaque toga virili, pararem addicere. Ego vero, incertus adhuc animi, et de medica arte ne vel somnians quidem, tanti viri hortatu atque authoritate permotus, nescio quo fato meo, me ad eam serio accinxi. Et sane, si quando hæc nostra conamina vel minimum in publica commoda cesserint, illi grato animo accepta referenda erunt, quo promotore atque auspice et studia primum sum aggressus. Post annos aliquot in palæstra Academica insumptos, Londinum reversus, ad praxim medicam accessi."

A comment upon this passage may be collected from Whitelock's Memoirs. On the 18th of June, 1643, William Sydenham, the elder brother, had three troops of dragoons put under his command, and was ordered to take care of Weymouth. The next duty in which we find him engaged, is that of Governor of the Isle of Wight, to which he was appointed in 1649. Hence it was, in the interval between these last two appointments, that he fell sick, was attended by Dr. Thomas Coxe, and was visited by his brother.

On Wednesday, and Midsummer Day, the garrison of Oxford

surrendered. Then it was, when Antony Wood, upon "returning to the house of his nativity, found Oxford empty as to scholars, but pretty well replenished with Parliamentary soldiers." Then, too, began the Parliamentary visitation which fell hard upon the more staunch royalists of that seat of learning, but proved tolerable to the trimmers, and favorable to the supporters of the Commonwealth.

We can easily understand that, for certain forms of speculation and research, this was an unfavorable combination of circumstances. For the solid results of solitary, uninterrupted, and continuous application, for prodigious specimens of either special or miscellaneous erudition, the proper conditions are, the appliances of ease, leisure, and opportunity, the certainty of prospective competence, and the regular routine of uninterrupted tranquillity. Nevertheless, for all those results of thought and observation that require the stimulus of agitation or interruption, the times that succeeded the surrender of the Oxford garrison were more favorable than unpropitious. The violent revolution, which had unsettled the minds of the students in each of the Universities, and in Oxford most, had produced a change in the character of the studies as well as in the discipline and government of the colleges. Nor was this change unmixed with good. There was little love of old doctrines, simply on the score of their antiquity, and there was also less tendency to acquiesce in authority than to test, observe, and criticise; for the ferment that had affected men's mind, in respect to the higher matters of theology and politics, had extended itself over the whole domain of scholarship, and philosophy. Men thought for themselves, and they did so, not because any modern method of investigation had supplanted an ancient one, nor yet because the new philosophy of Bacon was displacing the old philosophy of the schools, but because the spirit of investigation was aroused, and because there were more minds excited to a greater state of activity. I believe that at the time in question, there was,

in Oxford, more activity of thought than there has been either before or since; at least, it is certain that the number of philosophical thinkers was as great as it ever has been, and that the contact or collision of the University with the world at large, along with the stimulus that such collision developes, was greater. The troubles which disarranged the system of Oxford were a disturbance rather than a desolation.

In such a state of things Sydenham was a favoured man. Even if he had but little to show, on his own account, in the way of service to the Parliament, he had, on the part of his family, a mother and one brother who had fallen in the cause, and another brother who was one of their most useful and influential servants.

This was the year that determined the remainder of his career. Whatever he may have been before, he is from henceforward Sydenham the Physician. As to the previous service in the army, the evidence and presumptions are in favour of it. At the same time, the negative character of Antony Wood's evidence must be borne in mind, and so must the possibility of the services of *Captain Francis* Sydenham having been mistaken by Blackmore, or his authorities, for those of Thomas. The non-mention of anything of the sort in the dedication to Dr. Mapletoft goes for nothing. Good service done to the regicides is what a physician, in the reign of Charles II, would pass over as lightly as he could.

As for the Dr. Thomas Coxe, whose name is made thus prominent by the scantiness of other facts, whose skill saved the Parliament a soldier, and whose advice gave the world a physician, we have the following notice of him in Wood. Having taken the degree of Doctor of Medicine at Padua, he took it afresh at Oxford in 1646, (the year he met Sydenham,) was "Physician to the Parliamentary Army, afterwards Fellow of the College of Physicians, and President thereof, but being whiggishly inclined, was deprived of that office in 1688, for Dr.

Whistler." Furthermore, he put himself in prison to compound for his debts. The influence of political prejudice here illustrated, verifies (indeed it partially suggested) the previous observations.

In returning to his University, Sydenham returned to his College also. This we learn from Wood: "After the said garrison was delivered to the Parliament forces, he (Sydenham) returned again to Magdalen Hall."

He soon afterwards changed to All Souls, where he was elected Fellow in place of an expelled Royalist. We must here remember the extent of Sydenham's influence with the Parliament party, and also that a Parliamentary visitation was now sitting in Oxford. The following passage of Sydenham's refers to his fellowship at All Souls:—"Medicus doctissimus candidissimusque Dn. Doctor Millington, ejusdem mecum Collegii Socius." (Obs. Med. iv, 6, 11.)

He has now taken up his future profession, and I think that the preliminary knowledge, whether little or much, with which Sydenham began the practice of medicine, was acquired at Oxford. It was certainly acquired between the years 1646 and 1661. In 1648 he took the degree of M.B. These preliminary studies were begun upon and immediately after the recommendation of Dr. Coxe. These were begun, too, at Oxford. Lastly, it was some years before he went to London—post aliquot annos in palæstra academica insumptos; Londinum reversus, ad praxim medicam accessi. This is the direction of the evidence. His fellowship of All Souls (for fellowships then were of little value to non-residents) is a reason for his being at Oxford; whilst there is no equivalent reason for his being elsewhere.

It is stated, however, on the authority of Desault,[1] that Sydenham visited Montpellier. If he did so, it was probably about this time, perhaps during a long vacation. The best account of the Montpellier School of Medicine with which I am

[1] See the Latin Life of Sydenham in Dr. Greenhill's edition.

acquainted, is an attack made against it by Riolanus[1] in the year 1651, as likely a time as any for Sydenham to have visited it. At this period there was a strong feeling of exasperation on the part of the Parisian Faculty of Medicine against the Southern School. And there was a great distrust, either real or pretended, of Montpellier practice. Respecting this it may be said, that it was more expectant than heroic, and more tonic than evacuant. Bloodletting and purging it left to the Parisian physicians, and to whom it made the frequency of the application of such remedies a reproach. On the other hand, the Paris Faculty derided the cordials of the doctors of Montpellier; and, in respect to their organization and discipline, accused them of neglecting their lectures, selling their degrees, giving *pro forma* examinations, and uniting themselves with each other in a dishonest spirit of partisanship and exclusiveness. What Sydenham would have found, had he visited Montpellier, is (according to the younger Riolanus) as follows: —the single faculty of medicine absorbing the other two faculties of theology and civil law, with a medical professor conferring degrees in each; proportionate jealousy on the part of the divines and civilians; a medical faculty of six professors, and two *doctores aggregati,* one of which was absent; quarrels amongst the seven residents, statutes appealed to, neglected, interpolated, or forged, as the case might be; one professor non-resident; another engaged equally in vexatious lawsuits, and the cultivation of patent nostrums; Professor Courtant neglecting his lectures; Professor De Lort in pursuit of the philosopher's stone; and, finally, Professor Sharpe, who seems to have been a reformer amongst his brethren, as well as the only man who had a class, agitating for alterations, and, as such, hated accordingly. Besides which, if he had been inclined to avail himself of the privileges of the place, three months' residence, and

[1] Curieuses Recherches sur les Escholes en Médecine de Paris et de Montpellier. Paris, 1651.

the keeping of an act and opponency, would have made him a Bachelor of Medicine. So say the enemies of Montpellier. On the other hand, he might have learned the exhibition of calomel and antimony better there than elsewhere, have found more Protestants than in any University in France, and, very probably, have been enabled to avail himself of museums, libraries, and the observation of good clinical practice, just as well as if the discipline and learning of the place had never been attacked at all.[1]

The book to which I have referred is a good commentary upon Haller's characteristics of the chemical school of medicine in opposition to that founded upon the authority of Galen, "Ejus (chemicæ sectæ) asseclæ, venesectionis osores, et Galenicæ purgationis, calidis fere medicamentis indulgebant, atque sudoriferis."

A. D. 1648.—In this year Sydenham took the degree of Bachelor of Medicine, and he took it irregularly, i. e. without having taken a degree in Arts first. Antony Wood makes a passing remark on this slight academical anomaly.

The real, or supposed, studies of Sydenham at Montpellier, the amount of medical acquirements necessary for the degree of Bachelor of Medicine, and the internal evidence derivable from Sydenham's writings, are the three facts in favour of the regularity of his professional education that can be set against the current report as to the fragmentary and insufficient character of his preliminary studies. I cannot, for my own part, lay much stress upon any of them; nor have I any wish to disturb the common notions on the subject. Indeed, the question is a mere question of degree. The reasons for believing that Sydenham was a man of a *fair* education, both general and professional, are as sufficient as the reasons for not placing him amongst the physicians of his time, who were pre-eminently distinguished by either learning or science. It is

[1] Letter of the Bishop of Montpellier, Curieuses Recherches, p. 283.

equally unreasonable to consider him as either wholly untaught or fully instructed. In respect to his scholarship, I should be sorry to think that his admiration of Hippocrates was either mere lip-worship or taken at second-hand. His references to other writers on medicine are few; so that if we suppose that he quoted all that he read, we should form but a low opinion of his erudition. The only passage in his works that indicates any range of professional reading is in the chapter on the Plague. (Obs. Med. II, 2, 27.)

I am not able to fix the year when Sydenham established himself in London, or, more properly speaking, Westminster. It was certainly before the year 1661; probably several years before.

A. D. 1649.—This was about the time when Sydenham first began to suffer from gout, and from symptoms of stone. In 1679 he writes,—*et a podagrâ jam ab annis plus minus triginta, et calculo diu male multatus.* (Epistola Responsoria, I, p. 1.)

A. D. 1661.—The earliest epidemics upon which Sydenham has written, are the epidemics of this year. Furthermore, there were the epidemics of *London*. That city, therefore, or in Westminster, he must now be practising.

A. D. 1663.—In this year Sydenham became a Licentiate of the College of Physicians.

First examination, April 24, 1663.
Second examination, May 8, 1663.
Third examination, June 5, 1663.
Admission, June 25, 1663.

J. E. Alston,	*President.*
Dr. Ent,	*Censors.*
Dr. Micklethwaithe,	
Dr. Whistler,	
Dr. Merrett,	

A. D. 1666.—In this year was published the first edition of the first medical work of Sydenham. It consisted of four

sections, upon (1) continued fevers, (2) the symptoms of continued fever, (3) intermittent fevers, and (4) smallpox: and it was entitled, Methodus Curandi Febres, Propriis Observationibus Superstructa. It is convenient to call this the First Edition of the Methodus.

The following is the notice of it, in full, from the Philosophical Transactions, i. e. from the Transactions of what became afterwards the Royal Society, then in the second year of its existence. Date, Monday, May 7, 1666.

"*An Account of Dr. Sydenham's Book, entitled, Methodus Curandi Febres, Propriis observationibus superstructa.*

"This *Book* undertakes to deliver a more certain and more genuine method of curing fevers and agues than has obtained hitherto. And it being premised, *First*, that a fever is Nature's engine which she brings into the field to remove her enemy, or her handmaid, either for evacuating the impurities of the blood, or for reducing it into a *new state*. *Secondly*, that the true and genuine cure of this sickness consists in such a tempering of the commotion of the blood, that it may neither exceed nor be too languid. This I say being premised by the author, he informs the reader,

"In the *First Section*, of the different methods to be employed in the cure of fevers, not only in respect of the differing seasons of one and the same year, but of the difference of one year from another.

"As to the *former*, he shows in what sorts of *patients*, and at what time of the fever, phlebotomy, or vomiting, or both, are to be used; and when and where not; in what space of time the *depuration*, if Nature be not disturbed or hindered in her work, will be performed; when purgatives are to be administered; how that diarrhœas happen, if the *patient* had in the beginning of the fever an inclination to vomit, but no vomit was given; and that those symptoms, which commonly are imputed to a

malignity, do, for the most part, proceed from the relaxation in the tone of the blood, caused by medicines too refrigerating, or, by the unseasonable use of clysters in the declination of the disease.

"As to the *latter*, he observes, that one of the chief causes, rendering the cure of fevers so uncertain and unsuccessful is, that *practitioners*, do accommodate their observations, they take from the successful cure of some fevers in one season of the year, or in some one year, to that of all fevers in any season, or in any year whatsoever. And here he observes, *first*, how vigorous the blood is in the spring, and how dispirited in *autumn;* and thence regulates the letting of blood, vomiting, and giving of clysters. *Next*, how difficult it is to assign the cause of the difference between the fevers of *several years;* and to prognosticate of the salubrity or insalubrity of the following part of the year; where yet he insinuates, that when *insects* do swarm extraordinarily, and when fevers and agues (especially quartans) appear very early, as about *Midsummer*, then *autumn*, commonly proves very sickly. *Lastly*, what method and cautions are to be used in the cure of *epidemical fevers*.

"In the *Second Section*, he treats of the *symptoms* accompanying *continued* fevers, as *phrensies, pleurisies, coughs, hiccoughs, fluxes*, &c.; showing both whence they are caused, and how they are to be cured. Where, having inserted a considerable *paragraph*, touching a certain *symptomatical* fever in the *spring*, to be cured like *pleurisies*, he mentions, among many observables, this as a chief one, that *laudanum*, or any other *narcotic*, given against the phrensy, in the beginning, progress, or height of a fever, does rather hurt than good; but in the declination thereof, is used with good success.

"To all which he subjoins a particular account of the *iliac passion* (esteemed by him to be sometimes a *symptom* also of fevers); not only discoursing of its cause (a preposterous inver-

sion of the intestines, proceeding either from obstruction or irritation), but adding also a very plain way of curing the same, and that not by the use of *quicksilver*, or *bullets* (judged by him to be frequently noxious), but only by mint-water, and the application of a whelp to the patient's stomach, to strengthen the same, and to reduce it again to its natural motion.

"In the *Third Section*, he treats *intermittent fevers*, or of *agues*. Where he discourses of the times of the *cold* and *hot* fits, and of *that separation* of the subdued aguish matter; finds difficulty in giving a satisfactory account of the *return of fits;* distinguishes agues into *vernal* and *autumnal;* takes notice, that as there are few *continued* fevers, so there are only *quotidians* and *tertians*, in the spring; and only *tertians and quartans* in *autumn*, of which, having offered reasons that seem considerable, he proceeds to his method of curing them, and laying much weight on the said difference, he prescribes and urges different ways to be used in that cure, intersecting, among other things, these notes. *First*, that the period of fermentation in fevers, both *continued* and *intermittent*, is (if left to Nature's own conduct, and well regulated, if need be, by art) performed in about three hundred and thirty-six hours, or fourteen days, subducting, in *intermittent* ones, the hours of intermission, and counting five and a half hours for every paroxysm, and imputing the excursion beyond that time to the disturbance given to Nature by the error of practitioners. *Secondly*, that whoever hath had a *quartan* formerly, though many years be passed, shall, if he chance to have another, be soon freed from it; and that a physician knowing *that*, may confidently predict *this*.

"In the *Fourth Section*, the author, in conformity to the custom of those that write of fevers, discourses of the smallpox; and, *first*, examining the cause of this sickness, and its universality, delivers his peculiar opinion of the blood's endeavouring a renovation or a new texture (once at least in a man's life), and is inclined to prefer the same to the received doctrine of its

malignity. *Then*, having laid down, for a foundation of the cure, the two times of *separation* and *expulsion*, he argues as well against too high an ebullition, or too hasty a separation (by a hot diet or high cordials), as against too languid a one, (by blooding, purges, and cooling medicines). The like he does to the time of *expulsion*, forbidding *both* immoderate heat (whereby Nature's expelling operation is disturbed by a precipitated and too thick a crowd of the protruded pustules), and too much cooling, whereby true expulsion is hindered. In short, he advises, to permit *Nature* to do her own work, requiring nothing of the physician, but to regulate her when she is exorbitant, and to fortify her when she is too weak. He concludes all with delivering a model of the method he would use for his own only son, if he should fall into this sickness."

I have given this notice, as I shall give another, in full, for several reasons. In the first place, they have a literary value, as being amongst the earliest specimens of reviewing, and specimens of a favorable sort, coming from the pen of either Hooke or Oldenburg, the first two secretaries of the Royal Society. Secondly, they are abstracts of Sydenham's works, upon which I would not venture to improve, and which I am glad to lay before the reader in the form in which I find them. Thirdly, they are evidence as to the position which Sydenham held at the time of their publication, and representatives of the criticism of his contemporaries.

The dedication is a dedication of the age of Dryden, highly seasoned with encomium. This is the fault of the time; not of the author. In the particular case before us, the praise has the merit of being appropriate and deserved. Its object is Robert Boyle, who, much as he has done for chemical and physical science, is, nevertheless, not a man *who singly equals the most celebrated men of previous age—decantatissima anteriorum ætatum nomina unus exæquas.*

In this dedication, two observations deserve remark. Boyle had given Sydenham personal reasons for warm expressions of gratitude. He had also visited sick beds with him.

Respecting the first of these points, I have been unable to collect information. The second has been noticed repeatedly, both by the historians of chemistry, and by Boyle himself, from whose work on Specific Medicines the following is an extract.

"To illustrate this, but with a not ignoble instance, give me leave to tell you, that when that *Peruvian* bark, that now begins to be somewhat taken notice of, under the name of *the Jesuits' Powder*, had scarce been so much as heard of in this part of *Europe*, I went to visit a *Virtuoso*, who had been for some months afflicted with a quartan ague, so violent and stubborn, that it had frustrated the skill, and almost tired the endeavours of the most eminent doctors of this nation, of one, of which who was then accidentally with his learned patient, I inquired how my friend did, and was answered, that he hoped he would recover when the season would give him leave, but in the winter he knew no quartans cured. Yet the gentleman acquainted with his having procured some of the *American* bark against agues, which we mentioned in a former essay, and I (after having tasted and considered it) having encouraged him, as I haveo thers, to make trial of it, as the strange effects I have observed of it, hath divers times invited me to do; the candid and learned doctor, not only opposed not my persuasions, but added his own to them. And my friend taking two doses of this powdered bark, though it were at the unhopeful season of the year (the winter solstice), and though he scarce found any sensible operation (unless a little by sweat) of the *Peruvian* medicine, had, by a first dose, his fit very much lessened, and by the second, quite removed. And though, through some irregularities of diet (to which that keen appetite, like that of recovering persons, which I have observed this powder to be wont to produce, tempted him,) he did, as I then foretold him

he would, after missing eight or ten fits, relapse; yet, by the repeated use of the same remedy, he again recovered, and hath continued so ever since. Having also lately persuaded the use of the same medicine, in the same disease, to one of the greatest ladies in this nation, she told me the other day, that it immediately, and in unlikely weather, freed her from those fits from whence she despaired to be delivered till the spring.

"Having likewise sent some of it to a couple of gentlemen, sick of the like malady, I had word brought me, that one had missed his fits for a month, though in the midst of winter; and the other was by the first dose cured, and continues so. And divers physicians to whom I have commended the specific, have used it with such success, that one of the severest of them, though he had formerly despised it, confessed to me, that in a short time he tried it, upon eight or nine several persons, without finding it to fail in any, though one of them especially were, before he was called, judged irrecoverable, the obstinate quartan being complicated with other almost as dangerous distempers. And I confess I somewhat wonder that men have not the curiosity to try the efficacy of this powerful bark in other diseases than agues; it being highly probable, that a medicine, capable to prevail so strongly against so obstinate a disease as a quartan (wherein most commonly divers of the considerable parts of the body are affected), cannot be useless to several other distempers. I deny not that those who have taken this powder have divers of them, after having missed six or seven fits, relapsed into them (as it likewise happened to one of the gentlemen I sent it to), yet (as I have elsewhere told you,) it is much and more than any common remedy does, to stop the fit so long. Nor is it a small matter to be able to give the patient so much breathing time, and allow the physician the opportunity of employing other remedies. And the relapses we speak of are commonly cured by the same powder; and we have known them prevented, when the medicine hath been administered, not by unskilful persons,

but by a prudent physician, who knows how to assist it, by opening and gently purging physic."

It is matter of regret that the name of the candid and learned doctor here indicated is omitted. It may or may not have been Sydenham. Such, however, was Boyle's usual method of quoting his medical authorities; sometimes in the form of an anonymous encomium, sometimes with the mere initials. And this seems to be done intentionally. A letter to him from Sydenham will appear in the sequel.

In this year (1666) was printed a Dutch edition of the Methodus Medendi.

A. D. 1667.—The following letter from Oldenburg to Boyle was written towards the end of 1667. I have no means of supplying a comment.

"Dec. 24, 1667.

"SIR,—I must beg your excuse for not seeing Dr. Sydenham, who has been the only man that I hear of, who, when I was shut up, thought fit (God knows without cause) to rail against me, and that was such a coward as afterwards to disown, though undeniable. I confess that with so mean and immoral a spirit I cannot well associate."

(Birch's Edition of Boyle's Works, vol. vi, p. 258.)

A. D. 1668.—In this year was published a second edition of the Methodus; with general improvements, and with the particular addition of a chapter on the plague. This was the great plague of London of the years 1645 and 1646.

A copy of commendatory verses, in Latin elegiacs, that accompanies this edition, and which is not found in the edition of 1666, introduces from amongst the names of the wise and learned men by whom Sydenham was loved and respected, a greater name than even that of Boyle. When *Locke* praises Sydenham, he speaks with the authority of a brother of the profession. The medical studies of Locke were first indicated by Le Clerc, and upon Le Clerc's statement, Dugald

Stewart makes the following commentary.—"The merit of the method, therefore, which still continues to be regarded as a model by the most competent judges, may be presumed to have belonged in part to Mr. Locke; a circumstance which deserves to be noticed, as an additional confirmation of what Bacon has so sagaciously taught, concerning the dependence of all the sciences relating to the phenomena either of matter or of mind on principles and rules derived from the resources of a higher philosophy: on the other hand, no science could have been chosen more happily calculated than medicine to prepare such a mind as that of Locke for the prosecution of those speculations which have immortalised his name; the complicated and fugitive, and often equivocal phenomena of disease requiring in the observer a far greater portion of discriminating sagacity than those of physics properly so called; resembling, in this respect, much more nearly, the phenomena about which metaphysics, ethics, and politics, are conversant." (Dissertation of the Progress of Philosophy since the Revival of Letters.)

The extent of Locke's strictly professional attention to medicine has been better investigated by Lord Grenville than by any other writer. In his treatise, entitled Oxford and Locke, he shows that, during the year of the plague, 1665, he attended Sir W. Vane in Germany, and that in a medical capacity. In 1666, he was found by Lord Shaftesbury practising at Oxford. In 1667, we shall again find him bearing testimony to the medical merits of Sydenham. His latest biographer, however, Lord King, expresses doubt as to the extent to which he made medicine a profession. His evidence, however, as to Locke's habit of taking cases, and being consulted by his friends, are more conclusive to a professional reader, in favour of his having been in *bonâ fide* practice, than they seem to have been to a lay biographer. "Whether Locke had, at any time, serious thoughts of engaging in any profession is uncertain; his inclinations led him strongly to the study of medicine, which seems

very much to have occupied his thoughts to the end of his life, as appears from the frequent memoranda of curious cases that are to be found in his diary; and from the correspondence of his friends, who occasionally consulted him to a very late period, and from the number of medical books that he collected." (Life of Locke, Vol. i, 16.)

The merit of treating the plague as an inflammatory disease, and of applying to its cure free venesection, is shared between Sydenham and an army surgeon whose name is unknown,—indeed, as the disease so combated was an epidemic anterior to the great plague of London, the original practice is, perhaps, due to this unnamed practitioner. The disease was a disease of the time of the civil wars; the surgeon who treated it having seen it so treated in foreign countries. The account of this method is to be found in the Observationes Medicæ, ii, 2, 29.

A. D. 1674.—For this year a curious letter from Sydenham's nephew is preserved in Aubrey. Both the father and elder brother of Sydenham were now dead, and his nephew was the present owner of the family estates. On one of these was an old *tumulus* or barrow; which the nephew was archæologist enough to have opened and examined. The account he gives his uncle is marvellous. A Roman oven was found in it; and it was hot enough, when taken out, to bake bread, just as if it had been freshly heated. So it is described by the credulous landowner to the sagacious physician. But the whole was a hoax. The genius of the Sydenhams had not gone with the estates. Hutchins was informed "by the Reverend Mr. Birket, rector of West Compton, that several people then living had assured him, that what related to the oven and the heat in it was an invention of one Paul Salisbury, who was employed in the work, in order to please Mr. Sydenham, pick his pocket, and divert himself by laughing at him for recording it in a great book. After Mr. Sydenham's misfortune, he constantly

made a jest of his credulity, and declared in all companies that this story was invented by him. An old man told Mr. Birkett that he and all present were amazed at the impudence of the fellow, and the weakness of the gentleman. Mr. Sydenham was a weak man, and easily imposed upon; and Salisbury an arch, impudent, lying fellow."

A. D. 1676.—The first edition of the Observationes Medicæ.—Of this, a continental edition was published, within the year, at Strasburg. Notwithstanding the alteration of the title, and its very copious additions, the author considers this work as the third edition of his Methodus. In the dedication to Dr. Mapletoft we meet those brief notices of his own previous life that the scantiness of other evidence has made so valuable in the eyes of the biographer. We meet, also, with a reference to the testimony of Locke; meaning, thereby, the commendatory verses of the edition of 1668. When this work reached Locke he was on the continent. The following is the postscript of one of his letters to Dr. Mapletoft; with whom, as with Sydenham, there was a strong mutual intimacy:—"My service, I beseech you, to all my friends in your walks, particularly to Dr. Sydenham: the spell held till I had left Montpellier; for by all the art and industry I could use, I could not get a book of his to Montpellier till the week after I had left it. I shall be glad to hear that it every day gains ground, though that be not always the fate of useful truth, especially at first setting out. I shall, perhaps, be able to give him an account of what some ingenious men think of it here; though I imagine he is too well satisfied with the truth in it, and the design that made him publish it, that it matters not much what men think; yet there is usually a great and allowable pleasure to see the tree take and thrive in our time which we ourselves have planted.—*Paris; June* 22, 1677." (p. 82.)

In this year Sydenham took the degree of Doctor of Medicine; not, however, at Oxford, but at Cambridge. His college was

Pembroke. The entrance is as follows:—*Maii* 17, 1676.—"Thomas Sydenham ex Aula Magdal. infra Universitat. Oxoniensem admissus ad gradum Baccalaurii in Medicinâ in prædictâ Universitate 14° die mensis Aprilis A. D. 1648, in collegium nostrum admissus est die et anno supra scriptis. Eodem die concessa est illa gratia ad incipiendum in medicina."

The diploma of Sydenham's M.D. degree is in the College of Physicians, signed by Barrow.

A communication from Mr. Mills, Fellow of Pembroke, supplies a reason for Sydenham's taking his degree at Cambridge, which I have not met with elsewhere. His eldest son was admitted a pensioner at that college, two years before, i. e. in 1674.

A. D. 1677.—For the first three months of the year, Sydenham was prevented practising by a severe attack of gout, and hæmaturia. The three next months he passed in the country for the sake of recruiting. In autumn he returned to London.—*Epistola Responsoria*, i. 10.

A. D. 1680.—In this year appeared the first edition of the Epistola Responsoria. Of these—

The first is to Dr. Brady, and is a continuation of that portion of the Observationes Medicæ, which treats of the epidemics, and concludes with the year 1678. The first Epistola Responsoria brings down the Observations to 1680. Dr. Brady was Regius Professor of Medicine in the University of Cambridge.

The second is to Dr. Paman, on the History and Treatment of the Venereal Disease.

A. D. 1682.—Publication of the first edition of the Dissertatio Epistolaris, to Dr. Cole, upon the treatment of the confluent smallpox, and upon hysteria.

A. D. 1683.—Publication of a Geneva edition of the Observationes Medicæ, and of the Epistolæ Responsoriæ. Publication of a Frankfort edition of the Dissertatio Epistolaris. Publication of an Amsterdam edition of all Sydenham's works hitherto published.

Publication of the first edition of the Tractatus de Podagra et Hydrope. The notice of this work in the Transactions of the Royal Society, is as follows—

"*Tractatus de Podagra et Hydrope*, per Thos. Sydenham, M.D. *Lond.* 1683.

"The account this treatise gives us of the gout, is grounded upon the author's many years' experience, both of the disease itself, and of the method of cure. He is very exact in his description of the rise, progress, causes, and symptoms of it, and tells us those men are most commonly attacked by it in their age, whose youth was pampered with spirituous wines, and high diet; whom, though they perceived no inconveniences but what their exercises then carried off, yet the necessary inactiveness of old age made them suffer what an active and vigorous youth permitted them not to feel. Not that the young or lean are totally exempt from it, inheritance and excess of venery, often bringing it upon those whose years and constitution might else have been privileged. And among all mankind, he observes, those most liable and made for it, whose large heads, and moist, lax, and full habit of body, mark them out, and dispose for its reception.

"But if any man is so happy as to escape it till he is old, he is never so often or so much afflicted, as he who is seized in his youth, either death preventing the full growth of the disease, or the native heat being not strong enough to throw off the *materia morbifica* upon the joints.

"The regular time of its invasion he assigns to the latter end of January, or the beginning of February, the chief time of its fury is at night, with which the pain proportionally declines, a series of which short fits constitute the general one, which sometimes lasts two or three months, and those who are in years, or weakened by other distempers, it seldom leaves till the summer drives it away.

"Among the other sad attendants of this distemper, he brings in the *stone*, which happens to most, either from their long lying on their backs, or from the intermission of the usual *secretions*, or else because both distempers may probably spring from one and the same matter.

"Neither is the body alone thus afflicted, but the torments reach the mind, so that every *paroxysm* is as much a fit of anger, as of the gout. Upon contemplation of all the *symptoms*, he imputes the whole distempers to the *defect* of *concoction* in the parts and humours of the body, which the want of animal spirits, many other ways formerly wasted, necessarily infers, by the great decay of the *ferments*, whose force depends chiefly upon these.

"As for the cure, he designs, antecedently, the digestion of the humours, and in the fit, the allaying of the heat and *ebullition* of them arising from their putrefaction, to the great opposition of which intentions he attributes the great difficulty commonly met with in endeavouring to remove this distemper.

"The *Dropsy* he makes universal, extending to all ages and sexes, though women are more liable to it than men, and are most commonly exposed to it, either when they are barren, or when age hath rendered them incapable of child-bearing.

"The true symptoms of it, are difficulty of breathing, little urine, and much thirst, the consumption of the other parts likewise, in proportion to the increase of the *hydropical*, constantly happens. The general cause he supposes the *weakness* of the *blood*, which, not being able to assimilate the *chyle*, lets it fall into the pendulous parts of the body, till at last it enters the abdomen, where, while the quantity of it is small, *Nature* forms little bladders to contain it, till at last, exceeding all measure, it knows no bounds but those of the peritoneum.

"The causes which weaken the blood, he takes to be the excess of *venesection*, or of any other evacuation, any long distemper, or a constant abuse of spirituous drinks.

"His indications are to evacuate the water, and to strengthen the blood, for both of which he gives particular directions, and

among his remedies, these two especially he commends, viz. *elaterium* and *crocus metallorum*.

"Discoursing of the hidden conveyances Nature carries off these waters by, he infers the great use of *anatomy* in *physic*, as being that without which it is impossible to form clear *ideas*, either of the nature or causes of the diseases; and does not in the least doubt the success of his method, unless the *viscera*, by long lying in the waters, are corrupted.

"He does not much commend the *paracentesis* or the *acupunctura*, they being as likely to cause a *gangrene* as *blisters* themselves; by the way, he takes notice of the burning with *moxa*, which he will not allow to have a *specific* quality in its flame, any more than another actual fire; and although we owe this medicine to the *Indians*, yet it was not unknown to the *ancients*, for Hippocrates directs cauterizing with raw flax in the very case of the *gout*."

The treatment of diseases by moxa was introduced into England from Holland, and into Holland from Japan. In a Guide to the Practical Physician, translated from the Latin of Bonet, and published in 1684, we find the following—"We have given you an epitome of Ten Rhijne of the moxa, we give you also much of Dr. Sydenham's Tracts that came out since the publishing of Bonetus. Besides, we have added much out of Willis on the scurvy, much out of Glisson and his partners, and Whistler on the rickets, none of which, except Willis, were ever in English." (Translator's Preface.)

Ten Rhijne was the great patron of the moxa in Holland; indeed, it is with his name that the practice was particularly associated. He is not, however, mentioned by Sir William Temple, who, in 1677, had written a letter to Monsieur de Zulichem, upon the cure of the gout by moxa; relating, in his gossiping way, his own afflictions, and the extent to which they were relieved, by what he calls the Indian remedy.

A. D. 1684.—Publication of a Geneva edition of the Dissertatio Epistolaris.

Publication of an Amsterdam edition of the Tractatus.

Publication of a Leyden edition of ditto. The title-page speaks of the book as being *Practici Londinensis celeberrimi.*

A. D. 1685.—In this year was published what may be called the standard edition of Sydenham's works:—Thomæ Sydenham, M.D., Opera Universa, &c. This edition does not contain either the Schedula Monitoria, nor the Processus Integri; the first being published in the following year, the latter after Sydenham's death.

A. D. 1686.—Publication of a Geneva edition of the Tractatus.

Publication of the Schedula Monitoria.

A. D. 1687.—Publication of an Amsterdam edition of the Schedula Monitoria.—English Letter to Boyle. *Vid. infr.*

A. D. 1688.—Publication of the second London edition of the Schedula Monitoria.

A. D 1689.—Publication of a Geneva edition of the Schedula Monitoria.

In reviewing the notices of the ten years of Sydenham's life, just enumerated, I cannot conceal from myself the fact of what I have written being the history of a *book* rather than of a *man.* Nevertheless, a list of editions, both English and foreign, with date and place, has one element of value even in the way of biography; it supplies us with the means of determining two things: the rate at which a reputation spreads, and the influence which a work exerts. I must add, that the whole of the bibliography of Sydenham's works is taken from Dr. Greenhill.

As no life of Sydenham ever omits his answer to Sir Richard Blackmore, I conform with the usual custom, and find room for it here. It stands in the words of Dr. Johnson; when Sir Richard Blackmore "first engaged in the study of physic, he inquired, as he says, of Dr. Sydenham, what authors he should read, and was directed by Dr. Sydenham to Don Quixote, *which* said he, *is a very good book, I read it still.* The perverseness of mankind makes it often mischievous in men of eminence to give way to merriment. The idle and the illiterate will long shelter

themselves under this foolish apophthegm." Perhaps these reflections are misplaced. No one is in danger of taking Sydenham's advice literally. As to the interpretation of it according to its spirit, there are two views. Sydenham might have meant to say a rude thing to Sir Richard Blackmore, and to suggest that for a person of his intelligence, one book was as good as another, or he might merely have meant that medicine was not to be learned by reading. Of these two interpretations, the latter is both most likely, and most reasonable.

Another off-hand saying attributed to Sydenham is to be found in the Allgemeines Gelehrte Lexicon (published 1751), in the life of Sydenham. When asked by Harris, why he wrote nothing concerning *the diseases of the head*, he answered that he did not undertake to write upon diseases that he was unable to cure. For all that, however, he wrote upon phthisis.

As the present point is a sort of resting-place in our biography, where we may pause, and discuss any question connected with the life of Sydenham in general, without being referable to any particular year of it, a fact upon which some little speculation has been wasted, may here be noticed. Although Sydenham was a licentiate of the College of Physicians, he was not a fellow.

This is mentioned in an invidious manner by Dr. Lettsom in the year 1804; and, I am not aware, that it has been similarly alluded to by any earlier writer.—" The great Sydenham, for all his labours, only gained the sad and unjust recompense of calumny and ignominy; and that, from emulation of some of his collegiate brethren and others, whose indignation at length arose to that height, that they endeavoured to banish him, as guilty of medicinal heresy, out of that illustrious society; and by the whispering of others was baulked the employment of the royal family, where before he was called among the first physicians. Yet some patrons this great and good man had among his brethren, as Goodall,

Brady, Paman, and Dr. Cole, of Worcester, as may be seen by their epistles in his works. Dr. Micklethwaite, a little before his death, did profess, notwithstanding all the attempts of several against the methods of Sydenham, that these would prevail, and triumph over all other methods; and the event has fully verified this prediction of Dr. Micklethwaite."

It would have been well if Dr. Lettsom had mentioned an instance of the sort alluded to, accompanied with the proper evidence. As it is, the envy and uncharitableness of the profession may or may not have been the case. I am as unwilling to acquit as to accuse mixed bodies of men of being actuated by unworthy personal motives, or of being influenced by individuals who are so actuated; on the other hand, it is not reasonable to multiply causes unnecessarily. Under the Restoration, the pressure of an arbitrary government lay as heavy upon bodies like the College of Physicians, as upon the parliament and the courts of justice. That there was a special interference on the part of the court in the case of Talbor, who, by royal mandate, was permitted to practise in London, without a license from the college, and in spite of its opposition, we learn from a letter of the secretary of state (Arlington)[1] to the president. That Dr. Coxe was expelled from the presidency for whiggism, we have already stated; and that Sydenham's non-election should be referred to the memory of his republicanism, is of a piece with the history and spirit of the times in question.

The year 1689 was the last year of Sydenham's active and useful life. He had long suffered from gout. Latterly he had suffered from the superadded torment of a renal calculus, which caused copious hæmaturia. He died at his house in Pall Mall, on the 29th day of December, 1689. He lies buried in the church of St. James's, Westminster, with the following mural tablet as a memorial: —

[1] Sir George Baker's Works—On the Cinchona.

PROPE HUNC LOCUM SEPULTUS EST
THOMAS SYDENHAM,
MEDICUS IN OMNE ÆVUM NOBILIS.
NATUS ERAT A.D. 1624.
VIXIT ANNOS 65.

DELETIS VETERIS SEPULCHRI VESTIGIIS,
NE REI MEMORIA INTERIRET,
HOC MARMOR PONI JUSSIT COLLEGIUM
REGALE MEDICORUM LONDINENSE A.D. 1810.
OPTIME MERITO.

That in 1666 Sydenham was the father of a single *son*, we learn from the first edition of the Methodus: "Si *filius* meus, unicus, cujus ego salutem et vitam vel ipsis Indiarum opibus longe præpono, ex hoc morbo ægrotaret, hoc fere modo eundem tractare juberem."

That the son's name was *William* Sydenham, we learn from the edition of 1668—"filiolum meum *Gulielmum* Sydenham."

That he was living in 1670, having recovered from the small-pox, we learn from the Observationes Medicæ, iv, 6, 12: "Hac sola methodo charissimus mihi filius, Gulielmus Sydenham, distincto hujuscemodi variolarum genere laborans, mense Decembri, 1670, favente numine, restitutus est."

That in 1685 he (Sydenham) was the father of *children*, we learn from the Observationes Medicæ—"Liberos meos, ac amicitia mihi conjunctissimos, curavi." (Obs. Med. v, 2, 14.) We also learn the same from the Dissertatio Epistolaris—"Hac ego methodo ipsius liberos, curavi." (p. 24.)

Further and more precise information we collect from Sydenham's will.

This was made on the 27th of November, 1688, and a codicil was attached to it on the 29th of the same month, of the following year, only a few days before his death. It directs

that his executor shall be Mr. Malthus,[1] an apothecary of Pall Mall, and that his remains shall be interred with a careful abstinence from all ostentatious funereal pomp. It supplies, also, in addition to that of William Sydenham, his firstborn, the *names* of Henry and James, the two other sons of the physician. Upon the first of these three the estate is left, entailed, and this is described as consisting of lands in Herts and Leicestershire. It is charged, however, with one payment of £200, to Henry Sydenham (then in Spain), with another of the same amount to James, and with the annual payment of £25 to Mrs. Catherine Gee, Sydenham's mother-in-law. Thirty pounds are also left for the sake of supplying a professional education to James, the son of Mary Thornhill, Sydenham's eldest sister. This nephew was, afterwards, the well known artist, Sir James Thornhill, the father-in-law of Hogarth. Three grandchildren, Barbara, Henrietta Maria, and Thomas, the children of William Sydenham, where living when their grandfather died. The codicil subtracts £50 from the £200 of Henry Sydenham, that sum having been forwarded to him in Spain, subsequent to the bequest of the will.

The entrance of William Sydenham at Pembroke Hall, Cambridge, has already been mentioned.

For the use of the son, who followed his father's profession, the "Processus Integri in morbis fere omnibus curandis" were drawn up by the father. The MS. was intrusted to Dr. Monfort, who printed twenty copies for private circulation. They appeared soon after this, in an inconvenient form, in the Nuremberg Miscellanea Curiosa. This caused the publication of them, in a full edition, as a posthumous work of Sydenham's in 1693; Dr. Monfort being the editor. Along with them we have a fragment of a treatise on phthisis, the composition of which

[1] In 1712, Apothecary to the Queen. Father to *Sydenham* Malthus, the grandfather of the Reverend Robert Malthus, the Professor.—Communication from the Rev. R. Holt, of Eton, and Reginald Bray, Esq., from private papers in the family of Malthus.

was interrupted by disease, and, finally, broken altogether by death.

Subjoined, as an appendix to the second volume, will be found the fragment of an English work, entitled Theologia Rationalis. It is the transcript of a MS. in the public library of the University of Cambridge, and is headed "Theologia Rationalis, by the famous physician Dr. Sydenham." As this heading, as far as it goes, is evidence on the side of the authenticity of the MS., whilst there is no evidence against it being Sydenham's, the fragment must be considered to have come from the author to whom it is ascribed, until reasons be shown to the contrary.

For some interesting extracts from a MS. in the Bodleian Library, headed "Extracts of Sydenham's Physick Books, and some good letters on various subjects," the reader is referred to Dr. Greenhill's *Anecdota Sydenhamiana*.

Did Sydenham ever visit the Canary Isles, and ascend the peak of Teneriffe? This question is suggested by a reference with which I have been courteously favoured by Dr. Kennedy, of Woodhouse, in Leicestershire, to a passage in Boyle's Works, vol. v, p. 706, Dr. Birch's edition.

I think he did not. The Sydenham mentioned by Boyle is a *Mr.* (not a *Dr.*) Sydenham. He was also sufficiently a loyalist to drink the king's health on the top of the peak; whereas the physician was more likely to have drunk to the memory of the Protector. Thirdly, he is mentioned as a person who was in the *habit* of seeing either the peak itself, or persons who lived under its shadow. Lastly, the time of the observations is one, at which a physician like Sydenham was more likely to be either prescribing or drinking Canary wine, than visiting the Canary Islands. However, that it was his son Henry who (in 1688, 1689, and perhaps at other times) was in Spain, is by no means improbable.

* * * * *

I should be glad to be able to follow the career of the son of Sydenham, but am destitute of materials.

The fortunes of the collateral descendants of Sydenham, and of the family estate, are neither satisfactory nor creditable. Sydenham's nephew, the son of Colonel Sydenham, and the William Sydenham, who was deceived on the subject of the oven, was Esquire of the Body to William III, and the last of the family, his sons having died during his lifetime. He "put up the estate at a private lottery. It was generally supposed that there was some trick designed, for it was contrived, or at least hoped, that the fortunate ticket would fall to the share of a confidant of the family, who they imagined would have been prevailed upon to return the estate for a small consideration. That ticket happened to be hers; but to their great disappointment she immediately married Doily Mitchel, Esquire, who sold it to George Richards, of Longbredy, Esquire. But it being necessary that Mr. Sydenham and his two daughters should make a formal surrender of the estate to the vendee, on their refusal, they were committed to Dorchester prison, about 1709, where they ended their days."

It is from a portrait in the College of Physicians that we must collect our ideas of the personal appearance of Sydenham. From this, the bust belonging to the same institution is most probably taken; at any rate, it is a later production—Sept. 30, 1757. "The college agreed to erect a busto of Doctor Sydenham in their cœnaculum, the expense not to exceed one hundred pounds, and appointed a committee to take care of this business. The committee to be the president, treasurer, register, Dr. Askew, and Dr. Akenside."[1] (Vol. xii, p. 61.) Of engravings, I find none within half a century after his death; and these seem copies of one another, but not of the particular picture just noticed. This was presented October 19, 1747, by Sydenham's grandson, and was painted by Mrs. Mary Beale.

[1] The drawing for the vignette woodcut, which stands in the general title to the Society's publications, was taken from this bust.

The descendants of the physician are in possession of no portrait with equal claims to originality, neither is any such known elsewhere. November 6, 1818, the College of All Souls applied for permission to purchase, or copy it, and were permitted to do the latter. Two other portraits, belonging also to the College of Physicians, are evidently late as well as inferior productions.

I now approach a question which, although it cannot be said either that much has been written upon it, or that the evidence was originally so conclusive as to supersede any subsequent investigation, is still a point whereon, according to my own observation, the opinion, both of good and bad judges, is equally decided; I mean the language in which the works of Sydenham were originally written. I have never met any one who did not, more or less, adopt the current notion, that the present form under which the Opera Sydenhami appear, was not the original one; that they were first written in English by Sydenham and afterwards translated into Latin by some one else, i. e. by either Dr. Mapletoft alone, or by Dr. Mapletoft and Gilbert Havers conjointly.

Now, upon the absolute fact as to the form, language, and authorship of the original Sydenham, I am not prepared to venture an opinion, being equally unwilling to either affirm or deny anything positive upon the question. Instead of this, I will submit to the reader an exhibition of the general principles upon which the criticism ought to rest, and the particular details, in the way of evidence, to which it has to be applied.

In the first place, there is no *a priori* improbability in the fact of Sydenham having been both able and willing to compose a Latin work of the merits and magnitude of the one under consideration. The condition of his family, his Oxford education and degrees, and the statement of his friend Sir Hans Sloane, who, especially, states that Cicero, of whom he had a fine busto in his study, was his favorite author, equally decide this portion of the question. *Some* Latin he *must* have had; and *much* Latin he *may* have had. And it is to those who

prescribe the exact limit of his scholarship, and venture upon asserting that whilst he had Latinity enough for keeping an act, he had not enough to write a book with, that the *onus probandi* should be allotted. We must not, therefore, in the case of Sydenham, argue as we might on a Latin edition of the work of some writer *known* to have been uneducated. In such a case as this last, the Latin dress must be ascribed either to the hand of a second person or to a miracle. Where, however, there is nothing that necessarily excludes the question of the author's capability, the work itself is *prima facie* evidence of such capability. This is an universal rule of criticism.

Secondly. It is also an established rule of criticism, that whoever maintains the opinion that any particular work is a translation, must do one of two things—he must either point out the original, or else give a plausible reason for its non-existence. This was the principle upon which Dr. Johnson disposed, off-hand, with M'Pherson's Ossian. It is the principle, too, upon which the French critics meet those over-patriotic Spaniards, who, on the strength of the accuracy of its descriptions of Spanish life, assume a Spanish original for the novel of Gil Blas.

A comparison of the ascertained facts will show (what it is always necessary to show in cases like the present,) the side upon which the burden of proof lies. This is with those who deny the original Latinity of Sydenham, a fact upon which I cannot too decidedly insist. It is perfectly allowable for the supporter of the contrary doctrine to rest simply on the case as it stands, and *require* reasons *against* the authenticity of the Latin Sydenham, rather than to *supply* them *for* it. I am no such supporter; and, consequently, have no wish to claim even the whole legitimate extension of the rule *affirmantis est probare;* at the same time, I consider that three out of four of the material and admitted facts are all on one side, and all on the side which those who impugn are bound to *dis*prove, rather that which those who defend are bound to prove.

1. It is a material and admitted fact, that the Opera Sydenhami are at present in a Latin form.

2. It is a material and admitted fact, that no *undoubted* English *original* has been produced.

3. It is a material and admitted fact, that the disappearance of such an English original, providing that it ever existed, has never been plausibly explained.

4. On the other hand, it is a material admitted fact, that the general belief of medical scholars is against the original Sydenham being in Latin.

Now, if the grounds for this last fact be not sufficient to counterbalance the three previous ones, it must be admitted that the case against the original Latinity of our author has yet to be made out. This narrows the question; since it is not asked whether Sydenham wrote in Latin or English, but whether the evidence for believing that what he wrote in English some one else translated into Latin be sufficient; and, be it remembered, that it is quite as important for medical scholars to know whether their opinions upon such a subject be logical or illogical, in the way of critical reasoning, as to know whether they are right or wrong as a matter of fact; the former question having the additional advantage of being what the latter is not, capable of determination, whilst the latter is, after all, a matter of uncertainty; since it is very easy for the fact to be one way, and the evidence another, just as events may occur, even whilst the chances are against them doing so.

Of course, the fourth fact enumerated above, viz. the current belief that Sydenham was originally written in English, is a complex one, and one capable of being resolved into such other facts as it is founded upon, and out of which it originated. These are—

1. The MS. of the College of Physicians.

2. The statement of Dr. Mapletoft's grandson.

3. The evidence of the style.

A. *The MS. of the College of Physicians.*—In the year 1795,

a MS. volume, in folio, was presented to the College of Physicians by Mr. P. Le Vaillant. The title-page is—

"MEDICAL OBSERVATIONS,

BY

THOMAS SYDENHAM.

Whatsoever thy hand findeth to doe, doe it with all thy might; for there is no work, nor devises, nor knowledge, nor wisdom in the grave, whither thou goest. (Eccles. 9°, 10°.)

LONDON, MARTIJ 26°, 1669.

D^{i}. THOMAS SYDENHAM, HIS BOOK,

684, ANNO DOMNO."

This last sentence ("D^{i}. Thomas Sydenham," &c.) is in a different and a younger hand from the rest. Then follows, in the next page,

"THE PREFACE.

"Thus I think I have my being upon this terrestrial orb, which, is both situate, and, as it were, thrust out at a vast distance from the glorious region of light and life, and likewise in a continual flux and reflux, in all and every of its parts—nor do I only live upon it, but wear also a body which is made up of the gross and vile parts thereof, and of necessity determined to that sudden change and dissolution whereunto the laws of its constitution have subjected the whole. But, nevertheless, I have an intellectual nature, which incessantly aspires after another, and that a more happy state of being; and, besides, its knowledge of a future happiness, is furnished with faculties suited to the attainment thereof. If, in compliance with the revealed will of God in Christ, and the innate laws of its own original purity, it shall vanquish the irregular suggestions of my body, to which, for a while, it is coupled; and managing both itself, and that under a due obedience to the will and those laws, shall employ the utmost faculty of both in adoring the supreme and ineffable Being in the practising of virtue and doing good to men. This being so, I find it highly imports me as a physician, not only with all my might to buckle to an

industrious management of my calling, for the present benefit of my patients, but likewise to the daily improvement of the faculty itself, for the universal benefit of mankind when I shall be dead. In compliance, therefore, with the sense I have of what is my duty herein, I shall, God willing, set down the most useful observations which I have, or shall make, touching diseases, or their cures. As to the faithfulness wherewith I shall do the same, I shall not need therein to beg the good opinion of any man, by saying I should be afraid by anything I now write to entail upon myself the death of men, even when I shall be in the grave; but shall appeal to the observations (provided they be not superficial) for justifying my own, as I can likewise do to my own conscience for the single aim I have at the benefit of mankind herein, being sensible that I have not been intrusted by God with these talents, how mean soever they are, which I have received to lay them out as I list either towards the acquiring riches or applause, but to do good in the world. But be my end what it will, sure I am that I do here in a little present, even to the ungrateful and supine, the product of all my great and sore travail both of mind and body, and perhaps in the meantime am so well acquainted with the customs of this evil world that I look for no other reward here for what I do, than their reproaching and vilifying my labours. But 'tis no matter. I expect my reward in a better state of being, and in a world where I shall be capable of true felicity, in which neither the air nor dust of this world ever have instated me.

"About the following observations, I desire to premise these things—

"*First*, that these observations are not, as others commonly published, the history of particular cases, but (together with the nature and phenomena of several species of diseases,) established practices and methods of curing, collected from a careful observation of a great number of instances in each disease.

"*Secondly*, that if it should happen that some later observations shall in some lesser things interfere with, or contradict, the former, I desire the latter may obtain most credit, it being to be reasonably supposed that the last are less liable to mistakes than the former, they being grounded upon longer experience, and better ability in me to make them."

This Preface is (to my mind at least) in a third hand. It is followed by several blank pages. Afterwards comes the general body of the MS., preceded, however, by the following tabular classification of fevers.

SYNOPSIS FEBRIUM.

- Febres
  - Continuæ
    - Stationariæ
      - Depuratoria.
      - Pestilentialis.
      - Inflammatoria.
      - Dysenteria.
    - Intercurrentes
      - Variola.
      - Morbilli.
      - Scarlatina.
      - Pleuritica.
      - Rheumatica.
      - Erysipelatosa.
      - Anginosa.
  - Intermittentes
    - Quotidiana.
    - Tertiana.
    - Quartana.

COMBINATIONES FEBRIUM.

- Incompatible
  - Depuratory.
  - Pestilential.
  - Inflammatoria.
  - Dysenterica.
- Compatible
  - Depuratory.
  - Autumnal agues, epidemical.
  - Intercurrentes reliquæ } Sporadic.
  - Pestis vera }
- Compatible
  - Inflammatoria.
  - Smallpox, epidemical.
  - Intercurrentes reliquæ } Sporadic.
  - Pestis vera }
- Compatible
  - Pestilentialis.
  - Pestis vera, epidemical.
  - Intercurrentes, sporadic.

This is, apparently, in the same hand with the words "D^{i}. Thomas Sydenham, &c.," except that it is firmer, and more formed. At any rate, it is different from either of the other two.

What follows is the equivalent (translation, or original, as the case may be) of the first sentence of the second chapter of the first book.

In the Latin this runs as follows—

"Cap. II.

"*De Morbis Epidemicis.*

"Nihil quicquam (opinor) animum universæ qua patet medicinæ pomœria perlustrantem, tanta admiratione percellet, quam discolor illa et sui plane dissimilis morborum epidemicorum facies; non tam qua varias ejusdem anni tempestates, quam qua discrepantes diversorum ab invicem annorum constitutiones referunt, ab iisque dependent."

In English—"There is nothing in the whole art of medicine that deserves more admiration than the great diversity which is to be observed in continued fevers; not so much in respect to the general seasons of the year (for, as to those, intermitting fevers chiefly have their differences,) as in respect of the different constitution of one year from another, &c."

Now, although this is not close in the way of translation, the next sentence is looser still, and, by the time we come to the end of the page, it is no longer possible to compare sentence with sentence at all; indeed, the remainder is scarcely sufficiently parallel with our present Sydenham to be considered even as an abstract.

This applies to pp. 13 and 14 of the MS.

Page 15 of the MS. coincides with chapter iv, p. 6, of the present edition; and what continues, is the paraphrase of the same chapter, down to p. 50.

Pages 24—29 of the MS. contain remarks on the pestilential fever and inflammatory fever, ending, "And this is the

substance of whatever I know, or at least am able to reduce to rules, concerning this sort of continued fever; and indeed, when I first published my Methodus Medendi Febres, I knew no other sort but the depuratory fever only, which there I handled."

The remainder is equally disjointed. At p. 49 the hand changes; and at p. 67 it changes again to the original one. This paraphrase (or translation) is no longer to be explained from the Observationes Medicæ, but from the Epistola Responsoria de Lue Venerea. It begins at p. 4.

In p. 77 we find a commentary headed 'Paroxismus (sic) Nephriticus;' in p. 82, 'Epidemical Diseases of the year 1670;' in p. 101, 'Epidemical Diseases of the year 1673.' Thirteen pages after this comes the concluding sentence of the whole MS., which is,—"All this, at least that which contains the history and cure of acute diseases, I have brought into my late book, entitled, 'Observationes Medicæ, &c.;' in which book, my observations are more perfect than in this manuscript." The history of this MS., in respect to its outward form, is completed by the additional statements—that it has the appearance of being a careful copy, rather than a rough draft; that here and there there are occasional erasures; that there is for the beginning a few marginal notes in the way of index; and that, in some places, there are figures in the margin, denoting the page of the printed edition which is translated, paraphrased, or abstracted.

Now a very little consideration will show that, whatever else this MS. may be, it is not the *original* English of what was afterwards Sydenham in Latin.

1. It is of later date than the Methodus Medendi, and consequently is no English original to *it*. This is shown by the first chapter, of which the Latin equivalent is found for the first time in the edition of 1686.

2. It is of later date than even the Observationes Medicæ, and the Epistolæ Responsoriæ, as may be seen from the concluding sentence.

3. It has the appearance of being a translation from the Latin, rather than an original basis from which a Latin translation might be made.

This last position rests upon the following argument. Every page contains sentences which are so Latin in their character and phraseology, as to exhibit internal evidence of being translations. Such a sentence (and there are hundreds of them) is the following:—"This fever began to be grassant at the end of the spring, contrary to the indoles of the fever preceding, &c." Now, whilst it is hard to mistake this for original English, it is very easy to consider it as a translation. At the same time, the converse phenomenon sometimes occurs, i. e., the English is plain and vernacular, whilst the Latin exhibits an attempt at being an over-idiomatic expansion of it—e. g., the "whole art of medicine," in the Latin, is, "*universæ qua patet medicinæ pomœria.*" This, however, is the exception rather than the rule.

Assuming, however, that the MS. is by Sydenham, we are reduced to the following dilemma. Either the English is the basis of the Latin, or the Latin the basis of the English. If the latter, what was the inducement which made Sydenham translate a work which, whether his own or not, in its Latin form, had appeared under his name? If the former, how came a man, whose Latinity was sufficient to Latinize his English style, to require the scholarship of any second person?

One of the alternatives in this dilemma forces us upon the reconsideration of the questions involved in the handwriting, and the concluding sentence. This last is evidence of so plain and straightforward a nature, that I know of nothing equally positive to set against it. To assume that it is a forgery, is to take upon one's self the burden of proof. Nevertheless, without doing this, I put a high value, as evidence on the other side, upon the unlikelihood of a man translating himself. But this introduces another point, viz., the identification of the handwriting. To those who believe that one of the hands of the MS.

is the same with the autograph of Sydenham, of which we have a specimen in the library of Caius College, Cambridge, on the fly-leaf of the Epistle to Brady, there can be neither doubt nor shadow of doubt upon this matter. Unlikely as it is that a man should translate himself, it is still more unlikely that he should transcribe the translation of another man. Hence the authorship of the MS. is unequivocally Sydenham's, if the handwriting be so. But this is an open question; in other words, a question liable to doubt. For my own part, I doubt the identity of the handwritings, but then I also doubt the value of my opinion on such a matter.

B. *The statement of Dr. Mapletoft's grandson.*—The following quotation from the Gentleman's Magazine, (vol. xiii, p. 528,) gives the grounds of Dr. Ward's statement respecting the authorship of Sydenham; that being the one which has influenced the opinion of the medical world ever since. The extract tells its own story. Dr. Ward, in his Lives of the Gresham Professors, asserts that Dr. Mapletoft helped Sydenham in his Latin. Dr. Swan censures the assertion, on the score of its being unsupported by argument. Dr. Ward rejoins, bringing forward his authority, and showing that his statement had been extended beyond what its expressions warranted.

Dr. Ward's reasons for having asserted, in his Lives of the Professors of Gresham College, that the works of Dr. Sydenham were translated into Latin by Dr. Mapletoft and Mr. Havers.

"It is now a considerable time since Dr. Swan published a new translation of the works of Dr. Sydenham, with his Life prefixed to it, which was afterwards printed separately in the Gentleman's Magazine for December last; and among other reports there taken notice of, as having commonly prevailed to the prejudice of Dr. Sydenham, one is this: 'That his works were composed by him in English, and translated into Latin by Dr. Mapletoft;' the truth of which fact he thought not

sufficiently evident, and therefore, as I had mentioned it in the Lives of the Professors of Gresham College (p. 275), he was pleased to call upon me for my vouchers. But having the works of Dr. Sydenham by me in Latin, my curiosity did not lead me to look into the translation; and, being in the country when the Life was republished in the Magazine, did not come to the knowledge of it till, upon my return home, it was told me by some of my friends. I endeavoured in my history to use all proper care in producing authorities for such facts as seemed to require them, but chose not to swell it unnecessarily where things were generally known, as I apprehended this to be, having often heard it affirmed, as well by gentlemen of the faculty as others. However, lest my silence should weaken the credit of what I have said, not only as to that particular, but likewise any others, for which I did not think it requisite to cite my authors; I shall, for the satisfaction both of the inquirer and the public, acquaint them with the proofs of what is there related; and also take this opportunity to rectify a mistake, which I now find I have been guilty of, in one circumstance concerning that fact. For I said, as Dr. Swan remarks, 'That Dr. Mapletoft translated the *Observationes Medicæ*, &c. of Dr. Sydenham into Latin at the desire of the author; and that the other pieces of that excellent physician were afterwards translated into that language by Mr. Gilbert Havers.' This was agreeable to the account I had then received. But having since applied myself to the Rev. John Mapletoft, rector of Byfield, in Northamptonshire, the Doctor's son, for more certain information in that affair, he has been so obliging as to acquaint me, that he has reason to think his father translated all those pieces of Dr. Sydenham which were printed together in the year 1683, and contain the whole of what has been published as his works in later editions, except the 'Schedula Monitoria.' What induces him to think so is, that he had not only heard his father say he translated the first volume, but likewise, though he never heard him name the particular pieces done

by him, yet he sometimes used to speak as if the whole, in a manner, was so done. And that he translated the treatise 'De Hydrope,' which is the last piece contained in the edition of 1683, is very certain from a particular circumstance, which his father would frequently relate with some pleasantry, both to his friends and likewise to himself, in order to caution him against inadvertency and over-hastiness in doing things with which he was well acquainted. The Doctor, it seems, after he had translated that discourse, sent his manuscript to Dr. Sydenham, who, in return, rallied him in a jocose and friendly manner, for having used the word *hydrops* always in the feminine gender. It not a little surprised him, how he could possibly have run into such a repeated mistake merely from inattention; and furnished him with a useful lesson for his son, to avoid the like. This translation must have been made about the time that Dr. Mapletoft took orders. And as he then bid farewell to physic, it is not to be wondered at that the 'Schedula Monitoria,' which Dr. Sydenham did not write till the year 1686, was translated by another hand. And that Mr. Havers was the person who did it, I have lately been assured, by two very eminent gentlemen of the profession, who were pleased to tell me that they had often heard it from Dr. Monfort, an intimate friend of Dr. Sydenham, and who published his 'Processus Integri,' after his decease.

"I have nowhere said that Dr. Sydenham was not sufficiently acquainted with the Latin tongue to have written his works in that language himself, without calling in the assistance of his friends. In the year 1666, he published a small treatise in Latin, entitled 'Methodus Curandi Febres Propriis Observationibus Superstructa,' which was printed at London, in octavo, and dedicated to the Honorable Robert Boyle. And the same year came out another edition of it, in duodecimo, at Amsterdam. This book consisted of four sections—'De Febribus Continuis,' 'De Symptomatibus Febres Continuas Comitantibus,' 'De

Variolis.'—And a second edition of it was published at London in 1668, corrected and enlarged with the addition of a fifth section, "De Peste sive Febre Pestilentiali;" and at the end, a Latin poem, by the celebrated Mr. Locke, which has since accompanied the several editions of his works. After this, in the year 1676, the Doctor published his 'Observationes Medicæ circa morborum acutorum historiam et curationem,' dedicated to Dr. Mapletoft, for which he gives the following reasons: "Tum ob mutuam qua nos invicem complectimur, amicitiam benevolentiamque; tum etiam quia nemo te melius judicare valeat, siquo in loco aut precio habendæ sint, quas hic trado observationes; cum per septennium, quod jam ultimo excurrit, plura e præcipuis atque insignioribus, quæ sequentes exhibent pagellæ, tute etiam oculis usurpaveris." And it is not improbable, that gratitude for his trouble and pains in the translation, might be an additional reason to those here mentioned, by which it seems as if their friendship had then continued about seven years, which was a year short of the time when the second edition of the 'Methodus Curandi febres' was published. There is no reason, therefore, to imagine that that piece was translated into Latin by Dr. Mapletoft, who did not take his doctor's degree till 1667, which was before his acquaintance with Dr. Sydenham. Nor have I ever heard of any other person who translated any treatise of Dr. Sydenham, besides Dr. Mapletoft and Mr. Havers. And as the greatest part of that last mentioned was afterwards inserted into the 'Observationes Medicæ,' under the proper chapters, what has been said of Dr. Mapletoft's translating these, must be understood with that exception. No one will question what Dr. Swan informs us of, from Sir Hans Sloane: "That Dr. Sydenham, with whom he was familiarly acquainted, was particularly versed in the writings of the great Roman orator and philosopher. But this, however, must have been in some of the last years of his life. For Mr. Mapletoft acquaints me, he had often heard his father say, that having presented Dr.

Sydenham with Tully's works, he soon after saw written in one of the volumes, in the Doctor's own hand, 'How unhappy am I never to have read Tully till after I was sixty years old!' As to the *Processus integri*, which is a posthumous piece, Dr. Monfort, who published it, tells us in his preface, that the manuscript was in Dr. Sydenham's own hand; so that very probably he took it himself out of his own works, it being generally pretty near in the same words.

"There seems to be no great difficulty either to suppose that Dr. Sydenham might desire the assistance of his friends to translate the several treatises, which compose his works, as he wrote them; or to accept of it when offered. The constant attendance on his practice, with the infirm state of his health, accompanied with the racking tortures of the gout, might easily induce him to this, though never so well qualified for it himself in other respects. And the reasons why Dr. Mapletoft should particularly be engaged in that friendly office, seem very obvious, as he was intimately acquainted with his method of practice, and much esteemed at that time for the elegancy of his Latin style. Several instances of the like nature, done by other persons, both to serve their friends, and at the same time benefit the public, might easily be produced, if necessary. I shall add no more, but to acquaint the reader that my only reasons for deferring this publication so long have been owing partly to other necessary avocations, and partly to my absence from home.

"JOHN WARD.

"G. C., *Oct.* 8, 1743."

The fullest extension that can be given to the assertion of Ward is, that *part* of Sydenham was translated by Dr. Mapletoft, and this is all that the fullest extension of the evidence of the MS. of the College of Physicians will supply.

c. *The style.*—Here we have the same want of some unequivocal and indubitable fact, as the groundwork of our reasoning, which has been so prominent a desideratum throughout. An

unequivocal and indubitable Latin work of Sydenham's would be a standard by which we might ascertain the extent to which his disputed Latin compositions bore internal evidence of identity of composition. But we have no such specimen; whilst to argue from the disputed work itself, is to argue in a circle. Then as to the English style of Sydenham. The Theologia Rationalis is not beyond the reach of scepticism, whilst the MS. of the College of Physicians is in the same predicament with the Latin forms of his works in general.

In this case, our nearest resource lies in a reference to the works of Dr. Mapletoft. Are these like or unlike the form which is taken by the Latin Sydenham? In my own mind, there is a great resemblance between the style of the Observationes Medicæ, and the Gresham Lectures of Dr. Mapletoft. Sydenham was stated, by Sir Hans Sloane, to have been an admirer of Cicero; yet the style of the Latin Sydenham is not Ciceronian, at least not wholly so. It attempts to be Ciceronian in the fulness, rotundity, and cadence of the sentences, but the idioms are the idioms of Terence or Plautus, if taken first-hand from the study of the original authors, and of Erasmus's Adages if taken second-hand. Now this over-idiomatic Latinity is characteristic both of the Latin Sydenham and of Dr. Mapletoft's Orations. This similarity is in one case, at least, more than merely verbal. Whilst Sydenham takes pains to distinguish the Egyptian from the Grecian Æsculapius, Mapletoft does the same (or *vice versâ*):—"A multis jam seculis ante natum non Græcum modo, sed (qui mille annis hunc antecesset) Ægyptium Æsculapium." (Pref. edit. tert. p. 1.) This is from Sydenham. Then from one of Mapletoft's orations comes—

"Æsculapium Memphitem (non Græcorum illum qui multis post sæculis natus est) Tosorthum etiam dictum, filium Ham (qui Græcis Ζευς Ἄμμων, Romanis Jupiter fuit) et ipsius Noæ nepotem, primum medicinæ autorem fuisse habitum et prisci ævi hominibus, ex antiquissimorum scriptorum monumentis,

conjectura, saltem verisimile jam pridem confecimus." Again, "et primum artis medicæ inventorem non Græcum illum qui millesimo præter propter anno post hunc nostrum floruit, sed Memphiticum, Tosorthum etiam dictum, filium Ham (quem Jovem nuncupatum fuisse superius ostendimus) et ipsius Noæ denique nepotem."

Putting these facts together, we find a complicated case of that sort of reasoning called *cumulative*, and which will probably affect no two readers exactly alike.

Those who believe that the evidence of Dr. Mapletoft's grandson as to his grandfather's share in the Sydenhami Opera, is of so positive a nature, that nothing equally peremptory has been set against it, will incline to the current doctrine. Those, on the other hand, who are aware of the extent to which one man may believe that he has written another person's work, and of the frequency, in literary history, of such hallucinations, will put it (as long as it stands unsupported by other facts) at a very low value indeed.

Then again, as to the reality of such facts, and as to their value as evidence, there is much room for a latitude of opinion. The similarity of the two styles is, in my own mind, the most important of them. Were it not for this, I should, for my own part, have laid so little stress upon the statement of the younger Mapletoft, as to have denied that a *primâ facie* case had been made out against the common-sense inference that arises from the existence of a Sydenham in Latin, and the non-existence of a Sydenham in English. Yet this similarity is by no means conclusive. Sydenham may have written, and Dr. Mapletoft have revised, and in revising have thrown in the idioms that are most characteristic. Without expressing any opinion as to the fact itself, I consider this latter view as an hypothesis which reconciles nearly all the statements, and is in itself intrinsically probable. At any rate the original Methodus was Sydenham's.

I cannot leave this portion of the subject without declaring

the extent to which, in the case in question, *the wish is father to the thought*. For two reasons, it would be gratifying to the admirer of Sydenham to be sure that he was the author of the works that bear his name, and that in the strictest and fullest sense of the word.

1. *The style is the man.*—The certainty that we were reading thoughts of Sydenham in the language of Sydenham (even though not in his mother tongue), would be, in some degree, a compensation for the scantiness of his personal history.

2. *Joint authorship should be acknowledged.*—The merits of the Latinity, if not Sydenham's, should either have been attributed to the real author, or have been disclaimed on the part of Sydenham. It is not right for a man to take the credit of both medical skill and good Latin scholarship, unless he possess both. If Mapletoft wrote the work, Sydenham allows himself to appear a better Latinist than he is; an inference which should have been precluded by an acknowledgment.

* * * * * *

The reputation of Sydenham grew rapidly, and he had himself the satisfaction of enjoying a considerable share of it during his lifetime. This we may discover by referring to the bibliographical portion of the present memoir, where we find an enumeration of the earlier editions both English and foreign. Of his contemporaries, I find the language to be generally that of courteous encomium, even upon points where they differ with him; language, of which the following extract from Morton is a fair specimen: "Dolet quidem me in hâc dissertatione a sententiâ magni Sydenhamii discrepasse: sed rationibus in capite septimo hujus exercitatione pensitatis constabit me multo usu fretum atque experientiâ edoctum non rixandi vel certandi gratiâ verum reluctante animo contradixisse. Pace igitur magni viri mihi etiam liceat liberali philosophiâ ubique professo, pro modulo meo, saluti humani generi hoc pacti prospicere et consulere."—Πυρετολογία, 1694.

However, that there was a tone of detraction, which every lover of science must perceive with regret, in the way in which *Lister* speaks of Sydenham, is remarked by Sir G. Baker: "satis constat falsum esse, quod aliqui vehementer volunt; nempe *antidotum* illud *mirabile* (ipse autem inter primos quantum scio, illud medicamentum olim in antidotis posui), multo minoris efficaciæ esse nunc quam aliquot viginti retro annis, mercatoresque ac pharmacopolas nostros (ut quidam volunt) injuriæ fraudisque insimilando; cum tamen non in medicamenti bonitate, sed in exhibitionis tempore et modo discrimen sit. De hac autem re provoco ad Badum qui elegantissimum ac doctissimum tractatum ante triginti annos de Cortice Peruviano edidit, unde Sydenhamius aliique nuperi scriptores nostri, omnia sua habuerunt, præter unum illud, de corticis exhibendi, modo inepto, ne pejus dicam, et intempestivo, authore suo, misero illo agyrtà Talbor dignum inventum."—*Exercitationes Medicinales*, 1694.

Again he speaks of Sydenham *ejusque sectatores*. Concerning Talbor, the best account is to be found in Sir George Baker's treatise on the Cinchona Bark. At present it is sufficient to say, that Lister should have abstained from his abuse, and that it would have been better for even Sydenham to have mentioned him with praise.

The following verses, addressed to Morton, and consequently not long after Sydenham's death, are of Parisian composition; and they are verses of which it may be fairly said that the object is quite as praiseworthy as the panegyric.

"Plaudant Britanni, teque superstite
Jam nullus illum lugeat amplius,
Qui sanguinis motum relexit
Aut Sydenham, Willisiumve magnum.
Oblita belli Gallia te canat
Et qui benignum Peruviæ librum
Talborus ostendit, sed omnes
Non potuit numerare vires."

J. A. Blondel Parisiensis, M.D.

Of praise tempered with discrimination, I have extracted the following passage from Kreil, a writer of the school that immediately succeeded to the school of the contemporaries of Sydenham, and which was, to a certain extent, antagonistic to it—the Iatro-mathematical School of Borelli, of which Meade was the chief representative in England. "But the method of curing diseases by drawing indications from the evident and conjunct causes, has always been approved by the best, and generality of physicians. The knowledge of these causes is not to be attained by reason, but by a close and assiduous observation of all the appearances in the several stages of a distemper. The first that excelled in this knowledge was the divine Hippocrates, whose delineations of diseases are truly charming. In this method several of the ancients have followed him, but none ever came so near him as the deservedly renowned Dr. Sydenham and Mr. Morton, whose histories of diseases, for a full, exact, and nice enumeration and description of evident signs, causes, and symptoms,—for a judicious distinguishing of the several species of the same diseases, and for just prognostics, founded upon a careful observation of the common effects of such appearances, have surpassed all histories of the modern physician. And I may venture to say that there is no man that practises, but who does it upon some knowledge of the animal economy, or some notions of his own, which are more or less clear, according to his skill in natural philosophy. And for the truth of this I appeal to Dr. Sydenham's own writings, who by his philosophising has evidently shown us the necessity of that science he so much decried, and so little understood. He was undoubtedly a great man, and the world will always be obliged to him for his accurate histories of diseases; but there is no man without errors, and where one of his deserved character falls into a mistake, it does a great deal more hurt than if hundreds of others of lesser note had been guilty of the same."

Wider and more miscellaneous reading than my own amongst

the writers of the reign of William III and Anne, will probably illustrate in a satisfactory manner the rate of the rise of the posthumous reputation of Sydenham, and show how it has come to pass that he is so pre-eminently and exclusively the representative of English practical medicine; and that with such contemporaries as Glisson and Willis in scientific and speculative medical knowledge, and as Morton in his own special department of rational empiricism. At present I have little to lay before the reader. The Harveian Orations have been examined by me in the order of time, for the sake of elucidating the growth of opinion in this respect; but the search has been unsatisfactory. As far as a negative statement may be made with safety, Arbuthnot, who delivered the Oration in 1727, is the first who mentions Sydenham, either with or without an encomium: "Sydenhamum, Hippocratis æmulum, qui plurimis, atque utilissimis inventis, ad morborum historiam, et curam pertinentibus artem nostram locupletavit." Henceforward the mention of Sydenham appears pretty regularly, and after the manner of an *edictum tralaticium*, with much the same epithets, and in nearly the same place. He is generally either *divine* or the *rival of Hippocrates;* his niche in the Harveian temple of Fame being between Glisson, Wharton, Lower, and Willis, on the one side; and Radcliffe on the other.

* * * * *

The notice of the more particular and prominent points from the details of such a practice as Sydenham's, precedes the more general criticism of his method and principles at large. With this view, I follow the example that is often set for me by Sydenham himself; who, without discussing the importance of the subject to which he alludes, gives it a certain amount of consideration, simply and solely on the ground of its having been usually noticed, in similar stages of their different investigations, by writers who have gone before him. Now, the current statements of the common brief biographies of Sydenham

are, that he was famous for (*a*) his laudanum, (*b*) his cooling treatment of the smallpox, and (*c*) his administration of the Peruvian bark in agues.

Upon either the pharmacy or the therapeutic applications of the *liquid laudanum of Sydenham* I have neither occasion nor intention to refine.

In respect to the treatment of variola, those who love the contrasts of good and bad, or of hot and cold, may compare the present rational treatment of our contemporary practitioners with the treatment of the *Rosa Anglica*. After bleeding, and stimulants, the patient was not only sweated, but sweated in scarlet cloth. "Deinde capiatur scarletum rubrum et involvatur variolosus totaliter, vel in panno alio rubro, sicut ego feci de filio nobilissimi regis Angliæ quando patiebatur istos morbos, et feci omnia circum lectum esse rubra. Et est bona cura. Et curavi eum in sequente sine vestigiis variolarum." (Rosa Anglica, p. 41.) With this strange example of ignorance and superstition before us as the type and samples of what was considered the *hot* regimen, and with the expression of a sincere hope that John of Gaddesden, its author, stood alone in the fiery character of his *methodus medendi*, the extent of Sydenham's improvement upon the practice of his time may be noticed; and, along with this, the extent to which he was the first to so improve it.

Upon this first point I refer the reader to Appendix B, wherein is contained the proof of the following statement, viz., that the change that Sydenham introduced was not the change from one extreme to (comparatively speaking) another; but rather a *media via* between two contrasting methods,—the method of promoting the eruption by blankets and brandy, and the method of replacing it by bloodletting and purging. Sydenham's method was really, in the eyes of its author, a *golden mean* between the cordial system and the evacuant system. In the eyes of his biographers it has been an extreme

instance of opposition. Nevertheless, the following extract from Sir Richard Blackmore's Treatise on the Smallpox, over and above the suggestion that it supplies as to the exceeding likelihood of Sydenham having been (with all his undenied candour and liberality of character), a man of a somewhat polemic temperament, supplies us also with a proof that, even in his own generation, it was the *cooling* treatment rather than the *evacuant* that was considered as the opposite to the *hot* regimen. Speaking of the two methods (Sydenham's and the one that it replaced), Sir Richard writes: "It is true that our most celebrated physicians, before Dr. Sydenham, declared for the last, but that the Doctor, *having taken a resolution before his entering upon the practice of physic, as he himself assured me in conversation, to act directly contrary, in all cases, to the common method then in fashion* among the most eminent physicians (*and he told me his reasons for it*), in conformity to the design, did, in the management of this disease, as well as others, oppose the common method of the physicians of the court and city."

This is concerning the nature of the innovation. Upon the question as to its originator, or upon the extent to which Sydenham was the *first* who changed a bad practice into a good one, I subjoin the following extract, indicated by Dr. Kennedy, from the Gentleman's Magazine of July, 1790:

"In Hutchins's History of the County of Dorset there is an account given that when the town of Blandford was burnt down, in the year 1731, many persons in the smallpox took refuge under the arches of the bridge on each side of the river, all of whom recovered without any bad symptoms, though the disease had proved fatal to great numbers of those who had been closely shut up in their houses before the fire broke out. Many people have taken occasion to date the origin of the cool treatment of the smallpox from this well-authenticated fact, and would be angry with any one who should entertain the least

doubt of it. All this may do very well with those so little conversant with medical biography as scarcely ever to have heard of the celebrated Dr. Sydenham (though this county gave him birth), and can still less be supposed to have read his Dissertation on the Smallpox, wherein rules for following the cool regimen are laid down as indispensably necessary, in most cases, for the well-doing of those afflicted with this disease. Dr. Sydenham's letter on this subject (addressed to Dr. William Cole, of Worcester,) is dated in 1682, seven years before his death, which event took place at his house in Pall Mall, in 1689.

"Now, I shall take leave to go further back, and affirm that, even Dr. Sydenham was not the first who pointed out the cool regimen in the smallpox, but that this mode of treating the disease was known to, and practised by, an ancestor of mine, born fifty-three years before Sydenham, of whom some mention is made in the Life of Lord Clarendon. This person, by name John Crane, was my great, great, great grandfather, and practised at Cambridge, where he died, in 1652, aged eighty-one years.

"Mr. Edw. Hyde being with his uncle, Sir Nicholas, on the Norfolk circuit, and lodging with the judges in Trinity College, was seized with the smallpox, and being removed to the Sun Inn, opposite the College, was placed under the care of the above-mentioned John Crane, a medical practitioner of considerable reputation in the general line of his profession, but more particularly distinguished for his uncommon success in the smallpox by following the cool regimen, on which account the management of Mr. Hyde was intrusted to him rather than to the professor of physick, and another physician at that time in high repute in the University. It was by this method of treatment (under God), assisted by the great skill and experience of my ancestor, that this then promising young man lived to become afterwards the great Earl of Clarendon, and father to the Queen of James the Second.

"To preserve the claim of my reverend forefather to the merit of being the first who systematically pursued the cool regimen in the smallpox, I request your insertion of this in your valuable repository; for though tradition has handed down the fact, it will otherwise insensibly fall into oblivion, as there are no printed documents extant to prevent its sharing that common fate.

* * * * *

"*Lineal descendants from John Crane, of Cambridge:*

	Nat.	Ob.
JOHN CRANE . . .	1620	1685.
JOHN CRANE . . .	1655	1710.
JOHN CRANE . . .	1681	1734.
JOHN CRANE . . .	1712	1766.

"The last-mentioned person had the livings of Great Saling and of Saffron Walden, in Essex; was eldest brother of Stafford Crane, who died in Red Lion Square in 1784, and father of, yours, &c.

(Signed) J. CRANE, M.D.

Dated at Dorchester, Dorsetshire, June 4, 1790."

Whatever might have been the case a generation ago, the present biographer of Sydenham can allow such a letter as the preceding to stand without comment or exception. Not even the most professed panegyrist is, now, bound to prove, that the credit of innovations, or discoveries, is limited to the single individual who first practised the one or hit upon the other. To appreciate the importance of an important doctrine, to let such appreciation generate the resolution to develope it before the world, and to earn such influence as shall convert a speculative theory into a practical benefit, or a single precedent into an example for unnumbered imitators—these are those true elements of originality that stand before the isolated fact of mere unappreciated priority of observation. If it were not so,

some unknown Oriental, and not Jenner, were the discoverer of vaccination. Nevertheless, it is right to know, that there were sensible men in England before Sydenham, and that Dr. Crane was one of them.

The opposition of the medical world, and the spirit in which Sydenham met it, may be collected from the following letter, the only undoubted English composition of Sydenham's.

"Dr. Sydenham to Mr. Robert Boyle.

"Pall Mall, April 2, 1688.

"Sir,—It had becomed me to have begged your acceptance, when I took the boldness to tender to you the second edition of my book; but partly business, and partly an unwillingness in me to give you two troubles at once, diverted me from writing. But now that you are pleased to give yourself the pains of a thanks, which I never thought myself capable of deserving from you, I hold myself obliged to return you my humble thanks, that you take in good part my weak endeavours, and are pleased to have a concern (as you always have done) for me. I perceive my friend Mr. Locke hath troubled you with an account of my practice, as he hath done himself in visiting with me very many of my variolous patients especially. It is a disease, wherein, as I have been more exercised this year than ever I thought I could have been, so I have discovered more of its days than ever I thought I should have done. It would be too large for a letter, to give you an account of its history; only in general I find no variolis, but do regret greatly, that I did not say, that, considering the practices that obtain, both amongst learned and ignorant physicians, it had been happy for mankind, that either the art of physic had never been exercised, or the notion of malignity never stumbled upon. As it is palpable to all the world, how fatal that disease proves to many of all ages, so it is most clear to me, from all the observations that I can possibly make, that if no mischief be done, either by

physician or nurse, it is the most slight and safe of all other diseases. If it shall be your hap to be seized of that disease (as probably you never may), I should recommend to you, upon the word of a friend, the practice mentioned in the 155th page of my book. I confess, some accidents there are incident to that disease, which I never was able to master, till towards the end of last summer, and which, therefore, could not be mentioned by me, as a phrenitis coming on the eighth day, where the patient is in the vigour of his youth, hath not been blooded, and hath been kept in a dose from the first decumbiture; as likewise (which is wont to be no less fatal) a great dosing, accompanied with a choaking respiration, coming on from the tenth day (reckoning from the rigour and horror, which is my way of accounting), and occasioned by the matter of a ptyalism in a flux-pox, baking and growing thick, as it declines and comes to a concoction in those days; but, which is observable, the smallpox never fluxes or runs together, but it hath been thrust out before the fourth day; and where you see any eruption the first, second, or third day from the decumbiture, you may safely pronounce it will be a flux-pox or a measle, for that sort, in its first appearance, is like it; and, which is likewise observable in the highest flux of all, as that which comes out the first or second day, it is in vain to endeavour the raising them to an height, for it is both impossible and unsafe to attempt, but all the discharge that can be, must be either from a ptyalism, in a grown person, or a diarrhœa, in an infant, to whom the same is no more dangerous than the other to the former. And wherever they flux, their discharge must be made one of those two ways. But of these things I shall discourse to you more at large, when I shall have the happiness to see you, which I hope may be suddenly. The town stands well in health, and at our end not anybody sick, that I hear, of the smallpox. I have much business about other things, and more than I can do, who yet am not idle. I have the happiness of curing my

patients, at least of having it said concerning me, that few miscarry under me; but cannot brag of my correspondency with some other of my faculty, who, notwithstanding my profoundness in palmistry and chemistry, impeach me of great insufficiency, as I shall likewise do my taylor, when he makes my doublet like a hop-sack, and not before, let him adhere to what hypothesis he will. Though, yet in taking fire at my attempts to reduce practice to a greater easiness, plainness, and in the mean time letting the mountebank at Charing-cross pass unrailed at, they contradict themselves, and would make the world believe I may prove more considerable than they would have me. But, to let these men alone to their books, I have again taken breath, and am pursuing my design of specifics, which, if but a delusion, so closely haunts me, that I could not but indulge the spending of a little money and time at it once more. I have made a great progress in the thing, and have reason to hope not to be disappointed. My occasions will not suffer me to give you more trouble, and therefore be pleased to accept of the tender of those very unfeigned thanks, which I here make you for all the singular kindnesses and favours whereby you have obliged me to be very uncomplimentary.

"Sir, your most humble servant,

"T. SYDENHAM."

Upon what may be called Sydenham's practice of administering Peruvian bark, I am induced, by some remarks of Sir George Baker's, to make a comment. It is done, however, without subscribing to either his inference concerning the discredit that the slow reception of so valuable a medicine reflects upon the medical profession, or to his praise of Talbor, whose reputation, in my mind, is of a suspicious character.[1]

[1] The imperfect sketch of history, which I have attempted to delineate, presents to the mind reflections a little humiliating to our profession. Had it not been for the casual experience of an uncivilized people, it might never have been discovered, that there existed, in the stores of Nature, a specific febrifuge. Had not the in-

A. D. 1632.—Cinchona bark, first introduced into Spain, and, between then and the year 1639, tried as a remedy, under the auspices of the Conde del Cinchon. Its consumption was slow. Tested and approved by the Spanish Jesuits.

A. D. 1643.—John de Lugo, a Spanish Jesuit, and one of its warmest advocates, made a cardinal. By him it is introduced into Italy, and reported upon by the Pope's physician in favorable terms.

A. D. 1649.—A large supply brought to Rome, by the Father Provincial, by whom it was given to the Jesuits in general, who came to the Jubilee, for distribution in their respective countries.

A. D. 1652.—Unsuccessful trial of the bark on Leopold, Archduke of Austria, when ill of a double quartan.

A. D. 1653.—The publication of the 'Pulvis Febrifugus orbis Americani, ventilatus a Joanne Jacobo Chifletio, Equite, Regio Archiatrorum Comite, et Archiducali Medico primario.' This was written by order of the only *half*-cured Archduke, in order to invalidate the credit of the new medicine, and to warn the world against its ill effects. At first it succeeded. It was soon, however, answered by Fabre, a French Jesuit, under the name of Antimus Conygius.

A. D. 1655.—In this year it appears to have been first introduced into England.

A. D. 1658.—This was the year of a violent epidemic remittent fever, recorded both by Willis and Morton, and which destroyed Oliver Cromwell, who "died of a sickness of fourteen days, which had appeared an ague at the beginning." A Mr. Underwood, Alderman of London, also dies of the same remittent; and being supposed to have fallen a victim to the

fluence of a great religious society, unconnected with the practice of physic, counteracted prevailing prejudices, at an early period, this medicine, though brought into Europe, might have long remained in obscurity, unknown and useless. And lastly, had not physicians been taught by a man, whom they, both abroad and at home, vilified as an ignorant empiric, we might, at this day, have had a powerful instrument in our hands, without knowing how to use it in the most effectual manner.

bark which was used as the remedy, discredits the practice of administering it. In this year, too, we find it advertised—"The fever bark, commonly called Jesuites powder, which is so famous for the cure of all manner of agues, brought over by James Thompson, merchant of Antwerp, is to be had either at his own lodgings, at the Black Spread Eagle, in the Old Bailey, over against Black and White Court, or at Mr. John Crook's, bookseller, at the Ship, in St. Paul's churchyard, with directions for the use. Which bark, or powder, is attested to be perfectly true by Dr. Prujean, and other eminent doctors and physicians, who have made experience of it."—(Mercurius Politicus, from Thursday, Dec. 9, to Thursday, Dec. 16, 1658.)

A. D. 1659.—Subject to objections on the score of interpreting too closely a loose expression of Dr. Brady's, that physician began, about this time, to employ the bark. This may be collected from his letter to Sydenham, prefixed to the first Epistola Responsoria—"Ego quidem per viginti, plus minus, annos dictum corticem variâ formâ et multiplici præparatione maximo cum successu exhibendum curavi." — Cambridge, Dec. 30, 1679.

A. D. —1663.—This is a year of much importance in the history of opinion in respect to the remedy in question.

It is the year fixed by Morton[1] as the year of the establishment of the general use of the Peruvian bark in Great Britain. That it was partially known a few years before, is seen in the preceding notices.

It is the year wherein was written, on the Continent, the standard, classical, and elaborate defence of the bark by Badius, against Chifletius, and Vopiscus Fortunatus Plempius, of Louvain; the latter having attacked the bark under the name *Melippus* Protimus, the former word being an anagram of the name *Plempius*.

Sydenham has now begun, and more than begun, to practise.

[1] Pyretologia, p. 136.

Within three years from the present time, he will have published the first edition of his Methodus.

Talbor is admitted a sizar of St. John's College, Cambridge.

As a general rule, the statement on the part of the historians of medicine, has been that it was Sydenham to whom is due the credit for having been the first of Englishmen who used the Peruvian bark in the cure of agues successfully, and for having, by either precept or example, or by both means, conquered the prejudice against it. Sometimes this is made without the introduction of any second name at all. Sometimes the name of Talbor (or Talbot) is introduced. When this is the case, it is brought in (with few exceptions) for the sake of being placed in a disparaging juxtaposition with that of Sydenham; in other words (with few exceptions), Talbor is rarely named, or if named, mentioned unfavorably.

In his own time, his praise, or blame, was in extremes. There were those who panegyrised him as warmly as he panegyrised himself—and that is saying a great deal. There were, also, those who, like Lister, could call him a *miserable quack*, and, like Gideon Harvey, speak of him as a *debauched apothecary's apprentice*.

The main facts of his life are as follows:

1. That, as said before, he was a scholar of St. John's College, Cambridge, in 1663.

2. That, about the same time (a little before, or a little after), he was an apothecary's apprentice at Cambridge.

3. That he practiced successively in Essex, Paris, and London.

4. That he cured agues by means of bark, but that the method of its administration was a secret.

5. That, partially by his successful practice, and partially by the sale of his secret to the dauphin of France, he made a fortune.

6. That a little before his death (which happened in 1681), he erected a monument in Trinity Church, Cambridge, in

memory of his family, with the following inscription: "Dignissimus Dominus Robertus Talbor, Eques Auratus, ac medicus singularis, unicus febrium malleus, Carolo II. ac Ludivoco XIV. illi M. Brittaniæ, huic Galliæ, serenissimo Galliarum Delphino, plurimisque principibus, necnon minorum gentium ducibus ac Dominis probatissimis, sic suis parentavit." &c.

7. That he was hated and opposed in Paris by the regular practitioners, in the way that it is considered right and proper, that men who make fortunes by secret remedies, should be hated and opposed.—The following is a notice of him from Madame Sevigné's Letters:—"L'Anglois a promis au roi, sur sa tête et si positivement, de guérir Monseigneur dans quatre jours, et de la fièvre et du devoiment, que s'il n'y réussit, je crois qu'on le jettera par les fenêtres; mais si ses prophéties sont aussi véritables qu'elles l'ont été pour toutes les maladies qu'il a traité je dirai qu'il lui faut un temple comme à Esculape. C'est dommage que Molière soit mort; il feroit une scène merveilleuse de D'Aquin, qui est enragé de n'avoir pas le bon remède, et de tous les autres médecins, qui sont accablés par les expériences, par le succès, et par les prophéties, comme divines, de ce petit homme. Le roi lui fait composer son remède devant lui, et lui confie la santé de Monseigneur. Madame la Dauphine, elle est déjà mieux," &c. (Lettres de Sevigné, tom. vi, p. 233, 8 Nov. 1.)

8. That he was similarly treated and opposed in London.—In 1678, he was practising without a licence from the College of Physicians, and was supported by the court in so doing; a special injunction from the Secretary of State being forwarded to that effect.

9. That after his death his secret was published under the name of the *English Remedy*.

Now, of later writers, Sir George Baker is the only one who has claimed the lion's share of the credit in the administration of bark for Talbor. Of the earlier ones, I have hitherto found

only Colbatch, who has been, at one and the same time, an admirer of Sydenham, and a supporter of the originality of Talbor.—"Dr. Sydenham, that honest and fair man, to whom all the world is beholden for his ingenious and candid way of writing."—"When Sir R. Talbor first began to use the *cortex Peruvianus* for the cure of agues, everybody cried out against it as the most pernicious medicine in the world." (Treatise on Gout, A. D. 1699.)

A. D. 1666.—First edition of the Methodus Curandi Febres. Here all that is said of the Peruvian bark is as follows:

"However much the use of the Jesuit's bark may check the fermentation for the time being, the residue of matter that requires to be dissipated by fermentation recovers its strength in a short time, and renews its war against Nature. I have known a quartan ague last some years, being only occasionally interrupted by the repeated use of this powder. Sometimes, indeed, when given just before the fit, it has killed the patient. Nevertheless, I will not deny that, in the decline of these fevers, Peruvian bark, cautiously given, has sometimes done good, and removed the fits altogether. This is most especially the case when the season is not particularly epidemic."—This is the note alluded to in Appendix A, as finding place in p. 81 of Dr. Greenhill's edition.

In this same year Talbor had begun his practice in Essex, and was using bark successfully in the marshes of that county.

A. D. 1668.—Second edition of the Methodus. No expression of greater confidence as to the value of bark in agues.

A. D. 1676.—Third edition of the Methodus, under the title of Observationes Medicæ. Here we find a modification of the opinions of 1666 and 1668. Spring agues he leaves to cure themselves. For the tertians of autumn, he prescribes a method in which bark takes no part. For quartans, he trusts to bark more than to anything else. The duration, however, of their

good effects he thinks doubtful, and their administration during the fit dangerous. Nevertheless, in the preface, he makes Peruvian bark the type of *specific* remedies; more so than either mercury or sarsaparilla in syphilis. (Med. Obs. i, 5, §§ 33-35; preface, § 23.) Talbor in London.

A. D. 1680.—First edition of the Epistolæ Responsoriæ. In the first, addressed to Brady, he declares his belief in both its innocence and efficacy. Explains his method of overcoming the two great objections to its use, viz. the sudden deaths of patients in cases where it had been administered a little before the fits, and the danger of relapses. (Epist. Resp. I, §§ 17-38.)

This was the year before the death of Talbor, who was now a wealthy man and a knight.

A. D. 1681.—Death of Talbor.

A. D. 1685.—Second edition of the Epistolæ Responsoriæ. Confirmation of his previous opinion, with an exception as to the safety of its use in scorbutic rheumatism. Alterations in the *formulæ* for its administration.

With hardly a single exception, I owe all the above-given facts to Sir George Baker; and it would be ungracious of me not to go with him as far as I can with his argument.

1. That Talbor used bark with success and confidence, when Sydenham used it partially and with hesitation (i. e. in the years 1666, 1668, and 1676) is certain.

2. That the known success of Talbor's practice might suggest to Sydenham the likelihood of bark being a more powerful remedy than he had himself found it in his own hands, and that, provided the conditions of its administration were better known, it might cure more cases than he had hitherto cured with it, is probable.

3. That at any given period the reliance of Talbor upon bark was greater than Sydenham's, is undoubted.

4. That any improvements in Sydenham's method of administration, and any increase of confidence in bark as a remedy, prior to 1681, were due, to any knowledge of either the details or the principles of Talbor's practice (further than what was suggested by the fact of Talbor's successful treatment), is an unnecessary assumption.

Perhaps this is no further, in the way of inference, than Sir George Baker goes, the following being the words he uses towards the end of his argument:[1]— "Whether Sydenham (*as has been confidently affirmed*) had the secret communicated to him by Talbor, or whether he discovered it by any other means, cannot, perhaps, be ascertained. But it is an indisputable fact, that in 1668, whilst Talbor was administering the Jesuit's bark in Essex, Sydenham, then in the height of his reputation, had still strong prejudices against it; and that in 1679 (Talbor being then established in London) Sydenham had become acquainted with the principle with respect to the right use of the powder; but had hardly carried the principle fully into practice even in 1680, Talbor having then received his reward from Lewis XIV for his secret." At the same time the general tone of his dissertation is so favorable to Talbor, that I cannot help thinking the words *confidently affirmed* express an affirmation in which he believes.

Whether Talbor or Sydenham was the most sagacious physician, is an open question. Which of the two possessed most of that liberality that becomes his profession, is a settled one. What Sydenham gave away, Talbor sold.

* * * * *

But it is not in the details of his practice that we are to look for the strength of Sydenham. It was not by means of these that he commanded the admiration of foreign physicians like Hoffmann and Boerhaave; that he gave his name to one of the

[1] Sir George Baker's Works, p. 755.

epochs of Haller; and that he now stands out, at nearly the end of a second century from the publication of his earliest writings, as the great representative of the practical medicine of practical England. In one of the newest works[1] on the Parisian therapeutics, I find the name of Sydenham mentioned as often as that of Broussais, whilst one of the best modern monographs on medical literature is a Swedish work[2] on his practice and his influence. Facts like these are the measures of both the extent and the permanence of reputations.

When Haller prefixed to one of his epochs the name of Sydenham, he recognised in that name the influence by which two schools of practical medicine were superseded by a third. The extent to which nearly all the methods of nearly all the practitioners were divided between these two schools, is one of the best known facts in medical history. There was the so-called school of Hippocrates, and the so-called school of the chemists: and between these the whole domain of medicine was divided; unequally, indeed, in different countries, and in different parts of the same country, but still divided. That Paris should be more Hippocratic than chemical was natural. The Sorbonne was the great mainstay of the established order of thought and practice. That Germany and Switzerland should hold by the doctrine of the chemists was also natural. The great innovator, Paracelsus, had been the teacher of an antagonistic system throughout the whole extent of the German language. Such were the two schools in their more extreme types, and in their respective national distributions. Such, too, is the classification of the different forms of medical investigation which, for the sake of a *general* expression of the characteristics of the two opposite schools, it is safe and convenient to adopt. But the

[1] Traité de Thérapeutique, par MM. Trousseau et Pidoux. Paris.

[2] Sydenham—Ett bidrag till Medicins Culturhistorie, af Israel Hwasser. (Sydenham—A Contribution to the History of the Progress of Medicine, by I. Hwasser.) Upsala, 1845.

real details of the therapeutics of the seventeenth century are not thus definitely distinguished. The duality of the two schools is not so evident in fact as in writing. The lines of demarcation are less trenchant than they are described. The school to which Hippocrates was the great master was not exclusively Hippocratic. There was the interfering influence of Galen, and, in many cases, a division of allegiance between these two authorities. Then there was the superadded influence of the Arabian writers, an influence which determined the differential characteristics of a school like Montpellier, as opposed to a school like Paris. There was difference and there was affinity; but the leading feature of the school in question, under all its modifications, was the deference to authority, rather than the appeal to observation.

The so-called chemical school, wholly or partially, consistently or inconsistently, logically or loosely, skilfully or unskilfully, was essentially *inductive*. It threw over the influences of opinion, precedent, and tradition. Now, it is this difference between the recognition of observation and authority, that constitutes the best *general* distinction between the two separate substantive schools that are spoken of as being the schools of the generation of Sydenham. Yet the unity of the chemical school was only real, so far as it stood in contrast to that of the Greco-Arabian physicians. In and of itself, it fell into a multiplicity of divisions and subdivisions; at times, to the utter loss of its so-called *chemical* characteristics. No follower of Paracelsus allowed himself to be so implicit a believer as to forego the indulgence of separate speculations of his own; and these speculations overlaid the creed of the original.

I have taken the names of Paracelsus and Hippocrates as those of the two eponymi of the two systems, and I believe that as long as the two schools preserve their separate substantive character, this designation is a true one.

But it was only in some cases that the two schools kept

what has been called their *separate substantive character;* and it is only for the sake of giving precision to our illustrations that two extreme, unmixed forms of medical philosophy have been put forward. It is a true and undoubted fact, that such extreme and unmixed forms really existed; but it is also true that such extreme and unmixed examples were rare.

No two facts are more necessary to be remembered by the biographer of Sydenham, than that, some years before he began to write, an *eclectic* school had placed itself between the classics and the chemists; and that during his lifetime, great sections of all the schools with which he was contemporary were transforming themselves into a fourth class—that of the *iatro-mathematicians.* Here it is, where the general historian of medicine determines the influence of the non-professional upon the professional philosophies, and asks how much the biological elements of medical speculation were influenced by the philosophy of Des Cartes, and how much mechanics affected physiology through the dazzling splendour of the generalizations of Newton; and here it is where he finds that the true induction of medicine has suffered both from physics and metaphysics.

Sydenham lived to see *chemistry proper,* as a substantive science, evolved out of what had hitherto been *iatro-chemistry,* or *chemiatria.* It was the latter rather than the former; in other words, it was *chemical medicine* rather than *medical chemistry.* Such was most truly the case during the whole period between the teaching of Paracelsus and the teaching of Boyle. Something better than alchemy, but at the same time something lower than medicine—this was the germ of the chemistry of which Sydenham witnessed the evolution. Every chemist before Boyle was a practitioner in medicine, and chemistry was only known as far it was subordinate to the last-named art. Agricola, the metallurgist, and Glauber, the nearest approach to a pure chemist, each collected the elements of their science as the preliminaries to

the practice of medicine. Hence, whilst physicians talk of the chemical school in medicine, chemists talk of the medical school in chemistry.

Sydenham lived, too, to see the remnants of the *chemiatria*, along with other forms of physic, develope themselves into *iatro-mechanics*.

But it was not to the iatro-mechanics that he lent his sympathies; and it was not upon the chemical physiology that he put his main hope and trust.

Nor yet was he eclectic in his philosophy. Whilst writers as early as Libavius believed that although no existing system, *by itself*, might contain the true method of medicine, yet that, nevertheless, a combination of the true portions of the two great systems might supply it, Sydenham looked beyond the pale of both. The friend of Boyle and the admirer of Hippocrates knew of much within these limits. He knew of much; but, what he wanted, was a logic, that neither system contained.

If this logic be the true induction of medicine, and if Sydenham be the first who applied it, his fame (great as it is), is still disproportioned to his deserts. But neither is exactly the case. His method was amongst the nearest approaches to the true one; and his recognition and exhibition of it *one* of the earliest.

It may fairly be claimed for Sydenham, that, less than most of his contemporaries—less, perhaps, than *any*—did he permit preconceived notions of disease or treatment, and, still less, merely authoritative opinions, to step in between the disease and the observation. He took cases as he found them, and asked what they taught, not what they proved. This simple recognition of the priority of direct observation, and its paramount supremacy to everything else, was the proclamation of what is now an old truth, of what was then a new one, and of what is always a great one.

With the next fundamental principle,—the principle upon which all rational empiricism rests—viz. that what will act remedially upon one instance of disease, will act remedially upon all identical ones,—he took the evidence of individual cases for the basis of his method. After the admission of the principle of observation, this assumption of the uniformity of action under identical (or, within certain limits, similar) conditions is the first process in the medical induction of all men; and it must have been the first in Sydenham's. It is one of the elements of his superiority, that he looked out for cases more watchfully, looked into them more closely, and appreciated the facts that they disclosed better, than his fellows.

The second process in pure medical induction is the second process all the world over, and it must have been the second process with Sydenham. This is the process of ascertaining how far a second case is identical with a previous one; or, if not identical, whether sufficiently similar to be similarly treated; or, if not sufficiently similar, what are its differential elements, and how are they illustrated by the results of previous experience. Here come in, over and above the simple power of observation, the powers of analysis and comparison. In these operations, too, Sydenham was subtle amongst the subtle, and accurate amongst the accurate. Perhaps, too, his judgment was more on its guard against the misleading influences of loose analogies than most men's. Perhaps, no man's is wholly beyond them.

For practice, these two processes were all that Sydenham wanted. For the development of a system, he wanted a third. This was the reduction of his observations, both on disease and treatment, to laws, more or less general. The intellectual powers here requisite were less, undoubtedly, the peculiar powers of Sydenham's mind, than the powers of observation, analysis, and comparison.

With those who take delight in discovering (what is easily

discovered) the frequent and innumerable discrepancies that occur both in the world of morals and in the world of action in general, between the premise and the consequence, between the word and the act, between the theory and practice, the accredited opinions concerning the difference between the speculations of Sydenham as a medical philosopher, and the practice of Sydenham as a successful physician, afford an ample fund of illustration. A bad theory and a good practice is the common contrast in the criticism of the history of Sydenham; and it is a contrast that gives a fine light-and-shadow effect in his biographers. *The system was worthless*—this was the fault of Sydenham. *The practice was good*—this was his merit. *The bad system was never allowed to regulate the good practice*—this was a greater merit than the last.

I am free to admit that, in those matters where the system of Sydenham was antagonistic to his practice, the practice generally took precedence, the theory generally went to the wall. Without, however, asking the reader to share in my criticism upon the current notions, I lay before him, as the results of my study of Sydenham, the following opinions:

1. That there are many instances where Sydenham's theory has modified not only his treatment, but his observations as well; unless, indeed, we admit one of two things; either—

a, That certain diseases have changed character; or,

b, That Sydenham's observation has surpassed, not only that of all who lived in his generation, but that of all who have succeeded him.

The over-accuracy of the correspondence between the character of particular fevers and the epidemic character of particular years, has not been verified to the extent that it is laid down by Sydenham; and the difference must be put down to the influence of a theory upon an observation. Let any who

doubt this, read the Recapitulation of the Fifth Book, or criticise his analogy between a continued fever and a quartan ague.

2. That his system and practice were not, as a general rule, in any remarkable antagonism with each. The belief that fever is an effort of Nature to expel morbid elements, and that critical evacuations are the means she uses, may possibly be an error. Nevertheless, it is an error that half the physicians of the whole world have shared with Sydenham. Neither is the method of promoting, by the aid of art, the particular evacuation of Nature (real or supposed), any sample of a contrasted practice. Yet it was the practice of Sydenham. Good or bad, his treatment and his system were nearly on a level. I trust to the study of the text of Sydenham for the verification of these suggestions.

I believe that the moral element of a liberal and candid spirit went hand in hand with the intellectual qualifications of observation, analysis, and comparison in the medical induction of Sydenham. This was remarkable, but not faultless; and it should be observed, that if, in a spirit of exaggerated admiration, we allow ourselves to assume that diseases were in Sydenham's time exactly as Sydenham described them, because he was so accurate a delineator, and then suggest, in favour of the accuracy of his delineations, the correspondence between the description and the disease, we argue in a vicious circle, and adopt a fallacy fraught with illogical consequences for the history of medicine and diseases. Suppose that Sydenham never overlooked important symptoms, and he practised for half his lifetime without seeing a single case of malignant scarlet fever.

Let it not either be thought, that he has owed his past or present prominence to the stinted dimensions of his contempo-

raries. For the general domain of Science, and for the special domain of anatomy and physiology, the early Transactions of the Royal Society, and the pages of Portal, give us abundant proofs to the contrary. Add to these, the great names supplied by Hallam for general and speculative literature, and we find, that, the Elizabethan age not excepted, the generation of Sydenham was the generation of the strongest and most active intellects that England has produced. It is the age wherein we find the germs of almost all the sciences that have since taken form and development. Geology, botany, the microscope, zoology, anatomy in all its branches, and chemistry, were cultivated by Hooke, by Morrison, by Grew, by Ray, by Willis, and by Boyle, respectively. It was the age of great scholars, like Bentley and Gataker; of great mathematicians, like Barrow; of great speculative philosophers, like Locke. It was the age of men like these in England; and of Redi, and Asellius, and Pecquet, and Borelli, and Swammerdam, and Von Graaf, and Leuwenhoek, and Bartholinus, on the Continent.

MATERIA MEDICA AND PREPARATIONS.

ADDER'S-TONGUE, *Ophioglossum vulgatum;* Linn.
Agaric, *Boletus Pini Laricis;* Linn.
Agrimony, *Agrimonia Eupatorium;* Linn.
Alkanet, *Anchusa officinalis;* Linn.
Anagallis, *Anagallis arvensis;* Linn.
Angelica, *Angelica Archangelica;* Linn.

Aqua epileptica, or *Aqua anti-epileptica*, or *Aqua epileptica Langii*. From Moses Charras's "*Royal Pharmacopœia.*" Translated into English. London, 1678. Page 225, Part IIII, Book III:—

"*A corrected Anti-Epileptick Water of Langius.*—Take shavings of man's scull, misletoe of the oak, roots of piony, and white dittany, of each two ounces; fresh flowers of lilly convally, two handfuls; of lavender, rosemary, and tilet, of each three handfuls; cinnamon, six drams; nutmeg, half an ounce; cloves, mace, and cubebs, of each two drams; being all bruised, put them into a matras close stopp'd, in eight pints of malmsey; let them macerate for a week over a very gentle fire; then distill them on a moderate sand-bath, and keep the water for use."*

Aqua cælestis.—Formula of the Pharmacopœia Londinensis, A.D. 1682.

℞ Best cinnamon, ℥j;
Ginger, ℈ss;
Sanders-wood (the three kinds), āā 3vj;
Cloves,
Galangale,
Nutmeg, āā 3ij;
Mace,
Cubebs, āā 3j;
Cardamoms (of each kind), āā 3iij;
Zedoary, ℈ss.
Seeds of melanthium, 3iij;
„ aniseed,
„ sweet fennel,
„ wild carrot,
„ ocymum, āā 3ss;
Root of angelica,
„ clove-gilliflower,
„ liquorice,
„ lesser valerian,
„ sweet-flag,
Leaves of horminium,
„ thyme,
„ calamint,
„ pennyroyal,
„ mint,
„ wild thyme,
„ marjoram, āā 3ij;
Flowers of red roses,
„ sage,
„ rosemary,
„ betony,

* I have been favoured with this formula by Dr. Pereira.

Flowers of French lavender,
„ bugloss,
„ borage, āā 3j;
Rind of citron, 3iij;

Of these, pound such as should be pounded (*terenda terantur*), and macerate, for fifteen days, in a glass vessel well closed, in twelve pounds of the best spirits of wine. Then distil in a water-bath. Add to the distilled liquors of the

Powder (*species*) of diambra,
Aromatic powder of roses,
Diamoschus dulcis,
Diamargaritis frigidi,
Diarrhodon albatis,
Electuarium de Gemmis, āā 3iij;
Yellow sanders-wood (pounded), 3ij;
Musk,
Ambergris, āā ℈j;
Clarified julep of roses, lb. j.

Shake well together, so as to mix the julep thoroughly with the water. Then lay by the mixture, in a vessel kept tightly closed by parchment and resin, until the dregs are deposited, and the liquor has become clear.

Aqua epidemica.—Formula of the Pharmacopœia Londinensis, A.D. 1677.

℞ Of the roots of angelica,
„ masterwort,
„ butterburr,
„ pœony, āā lb. ss;
„ meu,
„ scorzonera, āā ℥iv;
„ Virginian snakeweed, ℥ij;
Of the leaves of rue,
„ rosemary,
„ balm,
„ *carduus Benedictus*,
„ germander,
„ marigold (and flower),
„ dragon-wort,
„ galega,
„ mint, āā iv handfuls.

Pour upon these four gallons of spring water and two of the best spirits of wine. Macerate, at the heat of a warm bath, in a covered vessel, for three days. Distil, by means of a water-bath, four gallons. Suspend in the mixture half an ounce of saffron. Add to each pound of this liquor half an ounce of the best white sugar. Strain through a jelly-bag (*manica Hippocratis*).

Aqua mirabilis.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Cloves,
Galangale,
Cubebs,
Mace,
Cardamoms,
Nutmegs,
Ginger, āā 3j;
Celandine juice, lb. ss;
Spirits of wine,
White wine, āā lb. iij;

Infuse for twenty-four hours. Distil off lb. ij in an alembic.

Archangel, *Lamium purpureum;* Linn.
Asparagus, *Asparagus officinalis;* Linn.
Avens, *Geum urbanum;* Linn.

Balm of Gilead, *Balsamodendron Gileadense;* De Candolle.

Balsam of Lucatelli.—Formula of the Pharmacopœia Londinensis, A.D. 1677.

Melt one pound of the best bees-wax over a moderate fire in a like quantity of canary wine. Add, of the best olive oil and Venice turpentine, washed to whiteness in rose-water, āā half a pound. Evaporate the wine by boiling at a gentle heat. Remove the mixture from the fire, and add two ounces of red sanders-wood, finely powdered. Stir till it is cool. *Fiat balsamum.*

Bank-cress, *Sisymbrium officinale;* Linn.

Basilicon.—Formula for *unguentum basilicon majus* of the Pharmacopœia Londinensis, A.D. 1650.

℞ White wax,
Resin,
Mutton suet,
Greek pitch,
Turpentine,
Olibanum,
Myrrh, āā ℥j;
Oil, ℥v.

Reduce the myrrh and olibanum to powder, and throw them among the other ingredients when melted.

Bastard balm, *Melittis Melissa;* Linn.

Bear's-breech, *Acanthus mollis;* Linn.

Berberry, *Berberis vulgaris;* Linn.

Benedicta laxativa.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Picked turpeth, ℥x;
Scammony,
Bark of spurge-root,
Hermodactyle,
Red roses, āā ℥v;
Cloves,
Spikenard,
Ginger,
Saffron,
Long pepper,
Amomum (or else sweet-flag),
Lesser cardamom,
Seeds of smallage,
„ parsley,
„ caraway,
„ fennel,
„ asparagus,
„ butcher's-broom,
„ saxifrage,
„ gromwell,
Sal gemmæ,
Galangale,
Mace, āā ℥j.

Three times the quantity of clarified honey. *Fiat elect. sec. art.*

Betony, *Betonica officinalis;* Linn.

Bezoar of the East, *Concretions from the stomach of Asiatic mammalia.* Generally resinous.

Bezoar of the West, *Concretions from the stomach of European mammalia.* Generally earthy.

Birthwort, *Aristolochia longa;* Linn.
Bistort, *Polygonum Bistorta;* Linn.
Bitter decoction.—Formula of the Pharmacopœia Londinensis, A.D. 1677.

℞ Of the tops of the lesser centaury,
„ flowers of chamomile, āā one handful;
Gentian, ℥ss;
Senna,
Of the seeds of Carduus Benedictus, āā ʒj.
Boil down to four ounces.

Black cherry, *Prunus Avium;* Linn.
Bloodstone, *Fibrous red iron-stone.*
Borage, *Borago officinalis;* Linn.
Brooklime, *Veronica Beccabunga;* Linn.
Bryony, *Bryonia dioica;* Jacq.
Bugle, *Ajuga reptans;* Linn.
Bugloss, *Lycopsis arvensis;* Linn.
Butcher's-broom, *Ruscus aculeatus;* Linn.
Butter-bur, *Tussilago Petasites;* Linn.

Calamint, *Melissa Calamintha;* Linn.
Carduus Benedictus, *Centaurea Benedicta;* Linn.
Catmint, *Nepeta Cataria;* Linn.
Ceterach, *Asplenium Ceterach;* Linn.
Chicory.—See *Succory.*
China, *Smilax China;* Linn.
Cinquefoil, *Potentilla reptans;* Linn.
Coltsfoot, *Tussilago Farfara;* Linn.
Comfrey, *Symphytum officinale;* Linn.
Common bluebottle, *Centaurea Cyanus;* Linn.
Common decoction for clysters.—See *Decoction.*
Confection of hyacinth.—Formula of the Pharmacopœia Londinensis, A.D. 1677.

℞ Broken* hyacinth,
Red coral,
Bole armeniac,
Terra Lemnia, āā ℥ss;
Kermes,
Tormentil (the root),
Dittany (the root),
Lime seeds,
Sorrel seeds,
Purslane seeds,
Saffron,
Myrrh,
Red roses (without the claws),
Sanders-wood (each kind),
Stag-heart-bones,
Hartshorn,
Ivory scraping, āā iv;
Sapphire,
Emerald,
Topaz,

* The mineral hyacinth, *q. v.*

Pearl,
Gold-leaf,
Silver-leaf, āā ℈ij.
Camphor,
Musk,
Ambergris, āā gr. v.
Syrup of lemons.

Fiat confectio.

Couch grass, *Triticum repens;* Linn.

Crocus of antimony. Composed of sulphate of potash, teroxide of antimony combined with potash, oxysulphuret of antimony, and tersulphuret of antimony combined with sulphuret of potassium.

Cuckoo-pint, *Arum maculatum;* Linn.

DEAD-NETTLE, *Lamium album;* Linn.

Decoction—Common for a clyster.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Of the leaves of mallow,
„ violet,
„ pellitory of the wall,
„ beet,
„ mercury,
Of the flowers of chamomile, āā one handful;
Of the seeds of fennel, ℥ss;
„ flax, ℥ij;

Boil down to a pound.

Decoctum vulnerarium.—Decoction for wounds.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Of the leaves of agrimony,
„ mugwort,
„ wild angelica,
„ St. John's wort,
„ pilosella, āā two handfuls;
„ wormwood, one half-handful;
„ southernwood,
„ betony,
„ bugle,
„ comfrey (each sort, with the root),
„ avens,
„ plantain (each sort),
„ tormentil (with the root),
Of the buds of raspberry,
„ oak, āā one handful.

Gather in May or June, dry, cut up, and store in leathern or paper bags. When required for use, take three handfuls to four pounds of spring water, and two of white wine. Boil down to half over a slow fire. Strain. Add a pound of the best honey. Skim, and set by for use.

Devil's-bit, *Scabiosa succisa;* Linn.

Diacatholicon.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Pulp of cassia,
Tamarinds,
Senna-leaves, āā ℥ij;
Polypody,
Violets,
Rhubarb, āā ℥j;
Aniseed,
Barley-sugar,

Sugar-candy,
Scraped liquorice,
Seeds of gourd,
„ colocynth,
„ cucumber,
„ melon, āā ʒij.

Pound all that is not already powdered, and mix. Then take of fresh polypody of fennel-seeds, āā ʒvj; boil, in lb. iv of rain- or common water, down to two thirds. Strain. Add to the strained liquor two pounds of the best sugar. Boil a second time to the consistency of a syrup, with the pulps of cassia and tamarinds, and add in those ingredients which were in the form of powders.

Diacorrallion.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Red coral,
White coral,
Bole armeniac (true),
Dragon's blood, āā ʒj;
Pearls, ʒss;
Lignum aloes,
Red roses,
Gum tragacanth,
Cinnamon, āā ℈ij;
White sanders-wood,
Red sanders-wood, āā ℈ij.

Add four times the weight of sugar dissolved in weak cinnamon-water. Mix, and make into an electuary, *secundum artem.*

Diagrydium, Scammony and quince-seeds.

Diambra.—Formula of the Pharmacopœia Londinensis, A.D. 1677, for species Diambræ.

℞ Cinnamon,
Angelica-root,
Cloves,
Mace,
Nutmeg,
Indian leaf,
Galangale, āā ʒiij;
Spica indica,
Greater cardamom,
Lesser cardamom, āā ʒj;
Ginger, ʒiss;
Lignum aloes,
Yellow sanders-wood,
Long pepper, āā ʒij;
Ambergris, ʒiss;
Musk, ʒss.

Mix. *Fiat pulvis.*

Diaphœnicŏn.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

Take of the pulp of dates, boiled in hydromel, and strained, and of fresh barley-sugar, āā lb.ss; of sweet almonds, ℥iiiss. Pound and mix. Add of clarified honey, lb.ij. Boil for a short time, and add

Ginger,
Long pepper,
Mace,
Cinnamon,
Dried rue-leaves,
Fennel-seed,
Carrot-seed, āā ʒij;
Finely-powdered turbith, ℥iv;
Scammony, ℥iss.

Ft. elect. secund. art.

Diascordium.—Formula of the Pharmacopœia Londinensis, A.D. 1682.

℞ Cinnamon,
Cassia-wood, ℥ss;
True scordium, ℥j;
Dittany of Crete,
Tormentil,
Bistort,
Galbanum,
Gum-arabic, āā ℥ss;
Storax, ℥ivss;
Seeds of sorrel,
Opium, āā ℥j;
Gentian, ℥ss;
Bole armeniac, ʒiss;
Terra Lemnia, ʒss;
Long pepper,
Ginger, āā ʒij;
Clarified honey, lb.iiss;
Sugar of roses, lb.j;
Good canary wine, ℥viij.

Fiat electuarium secundum artem.

Dodder of the thyme, *Cuscuta Epithymum;* Linn.
Dragon's-blood, *Juice of Pterocarpus Draco;* Linn.

Emplastrum Diachalcites.—Formula of the Pharmacopœia Londinensis, A.D. 1682.

℞ Hogslard (well kept, unsalted, and free from membrane), lb.ij;
Old olive oil,
Oxide of lead,
Litharge of gold (ground and sifted), āā lb.iij;
White vitriol (burnt and powdered), ℥iv.

Boil together, over a slow fire, the litharge, oil, and lard, with a dash of plantain-water, stirring up the mixture with a spoon until of the consistency of a plaster. Upon removal from the fire, add in the vitriol, and make up into a mass.

Emplastrum ad herniam.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Galls,
Cypress-cones,
Rind of pomegranates,
Flower of pomegranates,
Acacia,
Seeds of plantain,
,, lousewort,
,, cress,
Acorn-cups,
Parched beans,
Aristolochia (each kind),
Bilberries, āā ℥ss.

Reduce to powder, and soak in vinegar of roses for four days. Roast and dry. Then add of

Comfrey (each kind),
Horsetail,
Woad,
Ceterach,
Root of osmund royal,
,, fern, āā ℥j;
Frankincense,

Myrrh,
Aloes,
Mastich,
Mummy, āā ℥ij.;
Bole armeniac (washed in vinegar),
Calamine,
Litharge of gold,
Dragon's-blood, āā ʒiij;
Tar,
Turpentine, ℥vj, or quant. suff.

Fiat emplastrum sec. art.

Endive, *Cichorea Endivia;* Linn.

Epidemic water. See *Aqua Epidemica.*

Eryngo, root of *Eryngium campestre;* Linn.

Euphrasy, *Euphrasia officinalis;* Linn.

Feverfew, *Pyrethrum Parthenium,* Sm.; *Matricaria Parthenium,* Linn. *Flos unguentorum.*—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Resin,
Resin of the pine,
Bees-wax,
Mutton suet, āā lb.ss;
Olibanum, ʒiv;
Turpentine, ℥iiss;
Myrrh,
Mastich, āā ℥j;
Camphor, ℥ij;
White wine, ʒss.

Boil. *Fiat empl.*

French lavender, *Lavandula Stœchas;* Linn.

Friar's balsam, *Tinctura Benzoini composita.*

Fumitory, *Fumaria officinalis;* Linn.

Funigreek, *Trigonella Fœnum Græcum;* Linn.

Garden angelica, *Angelica Archangelica;* Linn.

Garden scurvy-grass, *Cochlearia officinalis;* Linn.

Gascoigne's powder—*Pulvis e chelis cancrorum compositus.*—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Prepared pearls,
Crabs' eyes,
Red coral,
Pale amber,
Hartshorn (philosophically prepared),
Bezoar of the east, āā ℥ss;
Powder of the black tips of crabs' claws, ℥iij.

Reduce to powder, and make up with the jelly of the sloughs of British vipers.

Germander, *Teucrium Chamædrys;* Linn.

Golden-rod, *Solidago Virgaurea;* Linn.

Gourd, *Cucurbita Pepo;* Linn.

Great bluebottle, *Centaurea Scabiosa;* Linn.

Greater celandine, *Chelidonium magus;* Linn.

Gromwell, *Lithospermum officinale;* Linn.

Ground-ivy, *Glechoma hederacea;* Linn.

Ground-pine, *Ajuga Chamæpitys;* Linn.

Harebells, *Hyacinthus non-scriptus;* Linn.
Hart's-tongue, *Asplenium Scolopendrium;* Linn.
Hepatica, *Anemone Hepatica;* Linn.
Hermodactyle, *Colchicum autumnale* (?); Linn.
Hiera Picra.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Cinnamon,
Lignum aloes,
Asarum-root,
Spikenard,
Mastich,
Saffron, āā 3vj;
Aloes (unwashed), ℥xijss;
Clarified honey, lb.iv. ℥iij;

Mix. *Ft. elect. sec. art.*

Hungarian vitriol—Solution of nitrate of copper.
Hyacinth, silicate of zirconia. Also *zircon* and *jargon*.

Jujubes, inspissated juice of *Zizyphus vulgaris;* De Candolle.

Kermes, *Coccus ilicis;* Linn.

Lesser centaury, *Erythræa Centaureum;* Persoon.
Lilly of the valley, *Convallaria majalis;* Linn.
Liquid laudanum—*Liquid laudanum of Sydenham*, of the Pharmacopœia Londinensis, 1721, the *tinctura thebaica* of 1746, the present *vinum opii*. Sydenham's formula is as follows:

℞ Sherry-wine, lb.j;
Opium, ℥ij;
Saffron, ℥j;
Powder of cinnamon,
„ cloves, āā ℥j.

Lohoch sanum.—Formula of Pharmacopœia Londinensis, A.D. 1650

℞ Garden hyssop (dried),
Calamint, āā ℥ss;
Jujubes,
Assyrian plums (without the stones), āā lx;
Raisins (without the stones),
Figs,
Fresh dates, āā ℥ij;
Linseed,
Seed of fenugreek, āā 3v;
Maidenhair, j handful;
Aniseed,
Fennel-seed,
Iris-root (sliced in circles),
Liquorice,
Cinnamon, āā ℥ss.

Boil down to half in lb.iv of clear water. Add lb.ij of barley-sugar, and make into a syrup. Then, cut very finely, and pound.

Pine-cones (cleansed), 3v;
Sweet almonds (without the skins),
Liquorice,
Gum tragacanth,
„ arabic,

Starch, āā 3iij;
Orris-root, 3ij.

Take the syrup off the fire and pour it upon the above. Stir with a wooden pestle until the mixture becomes white.

Lovage, *Ligusticum Levisticum;* Linn.

MADDER, *Rubia tinctorum;* Linn.
Maidenhair, *Adiantum capillus Veneris;* Linn.
Masterwort, *Imperatoria ostruthium;* Linn.
Maudelein, *Achillea Ageratum;* Linn.
Meadow-saxifrage, *Saxifraga granulata;* Linn.
Meadow-sweet, *Spiræa ulmaria;* Linn.
Melilot, *Melilotus officinalis;* Linn.
Melon, *Cucumis Melo;* Linn.

Mithridate.—Formula of the Pharmacopœia Londinensis, A.D. 1782.

℞ Arabian myrrh,
Saffron,
Agaric,
Ginger,
Cinnamon,
Spikenard,
Frankincense,
Seeds of penny-cress, āā 3x;
Cicely,
Opobalsamum (or else oil of nutmeg by expression),
Sweet rush,
French lavender,
Costum,
Galbanum,
Cyprian turpentine,
Long pepper,
Castor,
Juice of hypocistis,
Storax,
Opoponax,
Indian leaf (fresh), (or else mace), āā ℥j;
True cassia-wood,
Poly of the mountain,
White pepper,
Scordium,
Seeds of the Cretan carrot,
Carpobalsamum (or else cubebs),
Lozenges of cyphus,
Bdellium, āā 3vij;
Celtic nard (purified),
Gum arabic,
Seeds of the Macedonian stone-parsley,
Opium,
Lesser cardamoms,
Fennel-seeds,
Gentian,
Flowers of the red rose,
Dittany of Crete, āā 3v;
Seeds of anise,
Asarum,
Sweet-flag,
Orris-root,

Phu,
Sagapenum, āā 3iij;
Meu,
Acacia,
Skunk-bellies,
St. John's-wort tops,
Canary-wine, enough to dissolve the gums and juices, *i. e.* ℥xxvj (there or thereabouts);
Clarified honey, three times the weight of all the rest, excepting the wine.

Fiat elect. sec. art.

Monk's rhubarb, *Rumex alpinus;* Linn.
Mousear, *Hieracium pilosella;* Linn.
Mullein, *Verbascum Thapsus;* Linn.
Myrobalan, *Terminalia Chebula;* De Candolle.

Orris-root, Root of *Iris Florentina;* Linn.
Ox-eye, *Chrysanthemum Leucanthemum;* Linn.

Peony, *Pæonia officinalis;* Linn.
Pectoral decoction.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Raisins, ℥j;
Assyrian plums,
Jujubes, xv of each;
Dates, vi;
Figs, iv;
Pearl-barley, ℥j;
Liquorice, ℥ss;
Leaves of maidenhair,
„ hyssop,
„ coltsfoot, āā one handful.

Boil down to two thirds in iij pounds of spring-water.

Pellitory of the wall, *Parietaria officinalis;* Linn.
Penny-cress, *Thlaspi arvense;* Linn.
Persicaria, *Polygonum Persicaria;* Linn.
Phlegma vitriolicum.—Dilute sulphuric acid.
Pilulæ cochiæ majores.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

French hiera picra, 3x;
Lozenges of alhandal, 3iiiss;
Scammony, 3iiss;
Gummy turbeth,
French lavender, āā 3v;
Syrup of French lavender, q. s.

Fiat massa sec. artem.

Pilulæ e duobus.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Colocynth,
Scammony, āā ℥j;
Oil of cloves, q. s.

Knead together until the mass softens. Add syrup of buckthorn. *Fiat massa sec. art.*

Pilulæ macri.—Formula of the Pharmacopœia Londinensis, A.D. 1682.

℞ Aloes (best), ℥ij;
Mastich, ℥ss;
Marjoram-leaves (dried), 3ij;
Salts of wormwood, 3j.

Reduce to powder, and make up into a mass, with the juice of sugared stalks (*caules saccharati*).

Pilulæ rudii.—Formula of the Pharmacopœia Londinensis, A.D. 1682.

℞ Colocynth, 3vj;
Agaric,
Scammony,
Root of black hellebore,
Turpeth, āā ℥ss;
Socotrine aloes, ℥j;
Cinnamon,
Mace,
Cloves, āā ℈iv.

The colocynth must be cleansed of its seeds, and cut into small pieces; the agaric rasped; the hellebore, the turpeth, and the aromatics coarsely pounded. Cover these to the depth of six fingers with the best spirits of wine. Macerate at a gentle heat for a fortnight. Strain, and squeeze strongly. Then dissolve the aloes and scammony; each being previously well cleansed. Pour the liquor into a glass alembic, and distil off the moisture until there remain a mass of the consistency of honey. Make into a mass.

Pulvis Comitissæ.—The *Pulvis Cometissæ* and the *Schedula Romana* are the oldest formulæ for the administration of Peruvian Bark.

Pimpinella, *Pimpinella Saxifraga;* Linn.
Plague-water, see *Aqua epidemica.*
Plantain, *Plantago major;* Linn.
Polypody of the oak, *Polypodium vulgare;* Linn.
Purslane, *Portulaca oleracea;* Linn.

Red sanders-wood, *Pterocarpus Santalinus;* Linn.
Rhodium, *Genista Canariensis;* Linn.
Roman wormwood, *Artemisia Pontica;* Linn.

Sal prunella, *Fused nitrate of potass.*
Salts of wormwood, *Carbonate of potass.*
Sanicle, *Sanicula Europæa;* Linn.
Savory, *Cunila sativa;* Linn.
Saxony-water—*Aqua cordialis frigida Saxonica.*—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Of the juice of borage,
„ bugloss,
„ balm,
„ bistort,
„ tormentil,
„ scordium,
„ verbena,
„ sharp dock,
„ sorrel,
„ goat's-rue,
„ cicely,
„ cornflower (both sorts)

Of the juice of roses,
„ marygold,
„ lemon,
„ citron, āā ℥vj.
„ pimpinella,
„ cinquefoil, āā ℥iij;
White-wine vinegar, lb.j;
Seeds of purslane, ℥ij;
„ citron,
„ carduus, āā ℥ss;
Flowers of water-lily, ℥ij;
„ borage,
„ bugloss,
„ violet,
„ sweet William, āā ℥j;
Powder of the three sanders-woods, ℥vj.

Mix, and let stand for three days. Then distil in a glass vessel. Add to the distilled liquor of
Terra Lemnia,
„ Silesiaca,
„ Samia, āā ℥iss.
Pearls prepared in lemon-juice, ℥iij.

Mix well, and keep for use.

Scabious, *Scabiosa arvensis;* Linn.

Scordium, *Teucrium Scordium;* Linn.

Sharp-dock, *Rumex acutus*, Linn.

Smallage, *Apium graveolens;* Linn.: Synon., *wild celery.*

Sir Walter Raleigh's powder.—The *confectio aromatica* of the present Pharmacopœia.

Solutive syrup of roses.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Take of boiling spring-water four pounds. Infuse therein as much of the fresh leaves of the damask-rose as the liquor will take. Cover up, and soak for twelve hours. Squeeze out strongly. Boil the liquor again, and add an equal quantity of fresh rose-leaves for a second maceration. Repeat this nine times, increasing the quantity of water each time by one third, and increasing the quantity of rose-leaves in proportion. Add four parts of white sugar to six of the liquor. *Fiat syrupus secundum artem.*

Sovereign syrup for melancholy.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

Take of the juice and water of sweet-scented apples, āā lb.jss; of the juice and water of borage, āā ℥ix; of the leaves of oriental senna, cleansed, lb.ss; of
Aniseed,
Fennel-seed, āā ℥iij;
Thyme of Candy, āā ℥iij;
Agaric (whitest sort),
Rhubarb (best quality), āā ℥ss;
Cinnamon, ℈iv;
Saffron, ℥ss.
Steep the rhubarb and cinnamon by themselves in
White wine,
Apple-juice, āā ℥ij;

Soak all, except the saffron, in the above-named waters. The next day pour in the juices. Boil over a slow fire, skim, and strain through a jelly-bag. Add four pounds of the best white sugar. Boil to a syrup. Hang the saffron in a linen bag, and squeeze it over the mixture. Lastly, add the infusion of rhubarb. Boil gently down to the consistency of a syrup.

Southernwood, *Artemisia Abrotanum;* Linn.
Speedwell, *Veronica officinalis;* Linn.
St. John's wort, *Hypericum perforatum;* Linn.
Succory, *Cichorium Intybus;* Linn.

Syrup of the balm of Fernelius.—A variation of the following formula in the Pharmacopœia Londinensis, A.D. 1650.

℞ Root-bark of bugloss, ℥j;
Root of white dittany,
„ cinquefoil,
„ scorzonera, ää ℥ss;
Leaves of balm,
„ scabious,
„ devil's-bit,
Flowers of bugloss (each kind),
„ rosemary, ää one handful;
Seeds of wood-sorrel,
„ lime,
„ fennel,
„ carduus Benedictus,
„ basil, ää ʒiij;

Boil in four pounds of water to half. Squeeze out the liquor, and add
White sugar, lb. iij;
Juice of bastard balm,
Rose-water, ää lb. ss.

Boil to a syrup, and flavour with
Cinnamon,
Yellow sanders-wood, ää ℥ss.

Syrup of the five roots, i. e. of *smallage, asparagus, bearsbreach, fennel, and parsley* [Greenhill].

Tacamahack, *Icica Taccamahacca;* Kunth.
Tamarisk, *Tamariscus Gallica;* Linn.
Tansy, *Tanacetum vulgare;* Linn.
Tutty, Impure oxide of zinc.

Unguentum nervinum.—Formula of the Pharmacopœia Londinensis, A.D. 1677.

℞ Cowslips (leaf and flower),
Sage,
Ground-pine,
Rosemary,
Lavender,
Laurel (leaf and berry),
Chamomile,
Rue,
Smallage,
Melilot (leaf and flower),
Wormwood, ää one handful;
Mint,
Betony,
Pennyroyal,
Parsley,
Lesser centaury,
St. John's wort, ää one half-handful;
Sheep's-foot (or neat's-foot) oil, lb. v;
Mutton (or beef) suet, lb. ij;
Oleum de spica, ℥ss.

Mash and boil. *Fiat unguentum secundum artem.*

Unguentum pectorale.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Fresh butter (washed in violet-water), ℥vj;
Oil of sweet almonds, ℥iv;
„ chamomile,
„ violets,
White wax, āā ℥iij;
Fat of fowls,
„ ducks, āā ℥ij;
Orris-root, ʒij;
Saffron, ʒss.

Reduce the last two to a very fine powder. Melt the rest. Wash several times in barley-water or hyssop-water. *Fiat unguentum sec. art.*

Unguentum pomatum.—Formula of the Pharmacopœia Londinensis, A.D. 1677.

℞ Fresh hogslard, lb.iij;
„ mutton suet, ℥ix;
Pomewater apples (peeled and sliced), lb.j ℥ix;
Red rose-water, ℥vj;
Orris-root (coarsely powdered), ʒvj.

Boil together in a water-bath, until the apples break down. Strain without squeezing, and keep for use. As the mixture gets warm, sprinkle in a little fresh rose-water, and add to every pound of the ointment twelve drops of the oil of rhodium.

VENICE TREACLE, *Theriaca Andromachi.*—Formula of the Pharmacopœia Londinensis, A.D. 1682.

℞ Squill lozenges, ʒlviij;
Lozenges of vipers (flesh and broth),
Long pepper,
Opium,
Lozenges of hedychroum, āā ʒxxv;
Red roses (without the claws),
Illyrian orris-root,
Liquorice-juice,
Navew seeds,
Shoots of scordium,
Balm of Gilead,
Cinnamon,
Agaric in lozenges, āā ʒxij;
Myrrh,
Spikenard, or zedoary,
Saffron,
Wood of the true cassia,
Indian nard,
Camel's-hay,
White pepper,
Black pepper,
Frankincense,
Dittany of Crete,
Rhubarb,
French lavender,
Horehound,
Parsley,
Macedonian stone-parsley,
Parsley-seed,
Calamint (dried),
Cinquefoil-root,
Ginger, āā ℞vj;

Young shoots of the carrot of Crete,
" " ground pine,
Root of the Celtic nard,
Amomum,
Storax,
Root of meu,
Young shoots of germander,
Roots of Pontic valerian,
Terra Lemnia,
Indian leaf,
Green vitriol (calcined),
Gentian-root,
Gum arabic,
Juice of hypocistis,
Carpobalsamum (or else nutmegs or else cubebs),
Seeds of anise (dried),
" cardamoms,
" fennel,
" cicely,
Gum acacia (or else plum-tree gum),
Seeds of penny-cress,
Tops of St. John's wort,
Seeds of bishop's-weed,
Sagapenum, āā ʒiv;
Castor,
Root of the long birthwort,
Jews' pitch (or amber),
Seeds of the carrot of Crete,
Opoponax,
Lesser centaury,
Thick galbanum, āā ʒij;
Canary wine (old), ℥xl (i. e. sufficient to dissolve the gums and juices);
Clarified honey (triple the weight of the powders).

Mix, and make into an electuary, *sec. art.*

Vervain, *Verbena officinalis;* Linn.

Vinum Benedictum.—Formula of the Pharmacopœia Londinensis, A.D. 1650.

℞ Saffron, ℥j;
Mace, ʒj;
Sherry-wine, lb.iss.

Soak.

Viper's bugloss, *Echium viperinum;* Linn.

Water-lily, *Nymphæa alba;* Linn.
White sandal-wood, *Santalum myrtifolium;* Sprengel. The young wood.
Wild thyme, *Thymus serpyllum;* Linn.
Wood-sorrel, *Oxalis acetosella;* Linn.

Yarrow, *Achillea millefolia;* Linn.
Yellow sandal-wood, *Santalum myrtifolium;* Sprengel. The old wood.

Zedoary, *Curcuma Zedoaria;* Roxburgh.

CONTENTS OF VOLUME I.

MEDICAL OBSERVATIONS CONCERNING THE HISTORY AND CURE OF ACUTE DISEASES.

PAGE

Epistle Dedicatory to the Third Edition 3

Epistle Dedicatory to the First Edition 9

Preface to the Third Edition 11

Preface to the First Edition 25

Latin Poem, by J. Locke 27

SECTION I.

Chapter I.—On Acute Diseases in general 29

Chap. II.—On Epidemic Diseases 32

Chap. III.—The Epidemic Constitution of the Years 1661, 1662, 1663, 1664, in London 41

Chap. IV.—The Continued Fever of the Years 1661, 1662, 1663, 1664, in London 41

Chap. V.—The Intermittent Fevers of the Years 1661, 1662, 1663, 1664, in London 70

SECTION II.

Chap. I.—The Epidemic Constitution of the Years 1665, 1666, in London 97

Chap. II.—The Pestilential Fever and Plague of the Years 1665, 1666 . 98

SECTION III.

Chap. I.—The Epidemic Constitution of the Years 1667, 1668, and part of 1669, in London 121

Chap. II.—The Regular Smallpox during the Years 1667 1668, and part of 1669 123

Chap. III.—The Continued Fever of the Years 1667, 1668, and part of 1669 151

SECTION IV.

PAGE

CHAP. I.—The Epidemic Constitution of part of the Year 1669, and of the whole of 1670, 1671, and 1672, in London . . 159

CHAP. II.—The Cholera Morbus of the Year 1669 . . . 163

CHAP. III.—The Dysentery of part of 1669, and of the whole of 1670, 1671, and 1672 166

CHAP. IV.—The Continued Fever of part of the Year 1669, and the whole of 1670, 1671, and 1672 177

CHAP. V.—The Measles of the Year 1670 182

CHAP. VI.—The Anomalous Smallpox of the Years 1670, 1671, 1672 . 187

CHAP. VII.—The Bilious Colic of the Years 1670, 1671, and 1672 . 193

SECTION V.

CHAP. I.—The Epidemic Constitutions of part of the Year 1673, and of the whole Years 1674, 1675 . . . 203

CHAP. II.—The Continued Fever of the Years 1673, 1674, 1675 . . 206

CHAP. III.—The Measles of the Year 1674 . . . 216

CHAP. IV.—The Irregular Smallpox of the Years 1674, 1675 . . 218

CHAP. V.—The Epidemic Coughs of the Year 1675, with the Pleurisy and Peripneumony that supervened . . . 226

CHAP. VI.—Recapitulation 234

SECTION VI.

CHAP. I.—Intercurrent Fevers 239

CHAP. II.—Scarlet Fever 243

CHAP. III.—Pleurisy 244

CHAP. IV.—Bastard Peripneumony 251

CHAP. V.—Rheumatism 254

CHAP. VI.—Erysipelatous Fever 260

CHAP. VII.—Quinsy 264

MEDICAL OBSERVATIONS

CONCERNING

THE HISTORY AND THE CURE

OF

ACUTE DISEASES.

Opinionum Commenta delet dies: Naturæ judicia confirmat.
CICERO, *de Nat. Deor.*

EPISTLE DEDICATORY TO THE THIRD EDITION.

TO MY DEAR FRIEND

MASTER JOHN MAPLETOFT,

DOCTOR OF MEDICINE;
PROFESSOR IN GRESHAM COLLEGE, LONDON; AND FELLOW OF THE ROYAL SOCIETY.

MOST LEARNED FRIEND,—

I have two matters whereon I must now address you. Firstly, I must explain the motives which have induced me to publish the present Treatise. Secondly, I must show reason for inscribing it with your name.

In respect to the first. It is now thirty years since I had the good fortune to fall in with the learned and ingenuous Master Thomas Coxe, Doctor, who was then attending my brother during a sickness; and who, from that time until the present, has followed his profession with success. I myself was on my way to London, with the intention of going thence to Oxford; the breaking out of the war having kept me away for some years. With his well-known kindness and condescension, Dr. Coxe asked me what pursuit I was prepared to make my profession; since I was now returning to my studies, which had been interrupted, and was also arrived at years of discretion. Upon this point my mind was unfixed, whilst I had not so much as dreamed of medicine. Stimulated, however, by the recommendation and encouragement of so high an authority, I prepared myself seriously for that pursuit. Hence, all the little merit that my works may have earned in the eyes of the public, is to be thankfully referred to him who was the patron and promoter of my first endeavours. After a few years spent in the arena of the University, I returned to London for the practice of medicine. The more I observed the facts of this science with an attentive eye, and the more I studied them with due and proper diligence, the more I became confirmed in the

opinion which I have held to up to the present hour, viz., *that the art of medicine was to be properly learned only from its practice and its exercise;* and that, in all probability, he would be the best skilled in the detection of the true and genuine indications of treatment, who had the most diligently and the most accurately attended to the natural phenomena of disease. To this, then, I wholly devoted myself; being fully sure that, although I might say with Lucretius,—

> "Avia terrarum peragro loca, nullius ante
> Trita solo,"[1]

yet, that with Nature for my guide, I should swerve not a nail's breadth from the true way. With this clue, I directed my attention to the close observation of Fevers; and, after getting over no few anxieties, and after many troublesome agitations of spirit, wherewith I allowed myself during my first years to be distressed, I, at length, hit upon a mode of curing them. This, owing to the request of my friends, I was persuaded to publish some time ago. After that, however, I observed that new forms of fever, hitherto unknown to me, succeeded each other regularly. Hereupon I resolved to apply all the care I was master of in collecting together the characteristics and the complications of each, hoping thus to make up for the scantiness and deficiencies of my earlier work by a closer and a more absolute history of the diseases in question. Now, whilst I was reflecting upon these things, whilst I was hard at work in my investigations, and whilst I was wholly absorbed in the grand operation of forging a Delphic sword[2] in the shape of some *methodus medendi* which should meet all cases, from amidst the multiformities and the versatilities of Nature, I

[1] Lucretius, De Rerum Natura, i, 928; iv, 1.—*Terrarum*, rectius *Pieridum*.

[2] The phrase *Delphic sword* was applied to anything that could be accommodated to a variety of purposes. (Erasmus, Adag., chil. ii, cent. 3, prov. 69.) Compare Infr., iv, 3, 14.—[G.] Sydenham evidently uses the phrase in a good sense, applying it to a remedy, which was (or was supposed to be) equally fit for a variety of diseases. Without venturing upon the negative statement, that this is never the classical use of the expression, I may observe that it is a slight deviation from the power given to it by Aristotle: *Nature makes nothing, as the armourers make Delphic swords,* meanly; *but one instrument for one purpose.*—Οὐδὲν γὰρ φύσις ποιεῖ τοιοῦτον διον οἱ χαλχόποι μαχάιραν Δελφίκην, πενίχρως, ἀλλα ἓν πρὸς ἑν. (Vide Erasm. Adag., oc. cit.)

made the following discovery, viz., that I had opened my eyes only to get them filled with dust—no Olympic[1] dust either. On the one side, I had no guide whatsoever; on the other, only the fancies of my own brain. Much, therefore, as I could have wished that these lucubrations of mine should have been increased and confirmed by the experience of years, I was, nevertheless, so fretted by the sneers and insults of pretenders, that I at length considered what was due to myself, and undertook my defence accordingly. In doing this, I was prevailed on by my friends, amongst whom I must name with honour, the sagacious Master Walter Needham, Doctor of Medicine, an ornament both to his profession and to literature. I trust that the facts which I record and publish will ensure me the candid part of mankind as partisans. In respect to the rest, I apply to them the acute saying of Seneca: "*Expectabo scilicet ut quicquam calumniæ sit sacrum cui nec Rutilius sacer fuit nec Cato?*"[2]

If, however, men be still found in whom the lust of abuse has been engrafted upon a natural discourtesy, and savageness of temper; if such men neglect to consider fairly whether I have written rightly or wrongly; and, finally, if they deem themselves injured when others proclaim new facts, of which they themselves had no previous knowledge—if such, I say, be found, I hope and trust that I shall endure them with a patient spirit. At any rate, I shall not reciprocate the asperities of their abuse. I shall oppose to them only what Titus Tacitus[3] opposed to the abuse of Metellus, a sentence which would have become even a Christian, "*Facile est in me dicere, cum non sim responsurus: tu didicisti maledicere; ego, conscientia teste, didici maledicta contemnere. Si tu linguæ tuæ dominus es, ut quicquid lubet effutias; ego aurium mearum sum dominus, ut quicquid obvenerit audiant inoffensæ.*"

[1] "Sunt quos curriculo pulverem Olympicum
Collegisse juvat." Horat., Od. i, l. 3. [G.]

[2] De Vita Beata, c. 18. [G.]

[3] I have not found this passage in any of the ancient writers. Refer, however, to Beyerlinck, Magn. Theatr. Vit. Human., tom. vi, p. 60, H. (Lugd. 1666, fol.)—[G.] The quotation in Beyerlinck is as follows: Tacitus Lucio Metello ei in Senatu maledicenti respondit, "*facile est in me dicere; quia non responsurus sum, potentia ergo tua non mea patientia est accusanda.*" The classical author referred to by Beyerlinck is Seneca. I have not succeeded, however, in finding the passage in any of the common editions of that classic.

And these are the grounds upon which I have been induced to conceive that this book should be published.

That so dear a friend as yourself should be the one to whom it was dedicated I desired, both on the grounds of our mutual affection and good-will, and for the reason that no one better than yourself could form a judgment as to the value and estimation of the Observations which I purpose to record. During the last seven years you have seen with your own eyes many of the leading and most important cases that will occur in the forthcoming pages. But as your known probity and integrity make it a point of conscience with you to draw no man into error under false pretences, (especially in matters of life and death,) so also would your learning and wisdom ensure you thoroughly against any deception on my part, were I foolish enough to contemplate it. Least of all would you deceive yourself in testing (as you have sometimes done in the cases of your own patients) the truth of any point asserted by me here, or stated before you elsewhere.

You know also how thoroughly an intimate and common friend, and one who has closely and exhaustively examined the question, agrees with me as to the method that I am speaking of; a man who, in the acuteness of his intellect, in the steadiness of his judgment, in the simplicity (and by *simplicity* I mean *excellence*) of his manners, has, amongst the present generation, few equals and no superiors. This praise I may confidently attach to the name of JOHN LOCKE.

There is no occasion, however, to go further in soliciting your confidence: I have long felt assured of it. In respect to the rest, I must cast the die. Fall as it may, I shall bear my chance with equanimity. I am now old. By the kindness of Providence, I have the wherewithal for the remainder of life. I aim only at the measure of happiness so beautifully described by Politian:[1]

> "Felix ille animi, Divisque simillimus ipsis,
> Quem non mendaci resplendens gloria fuco
> Sollicitat, non fastosi mala gaudia luxus.
> Sed tacitos sinit ire dies, et paupere cultu
> Exigit innocuæ tranquilla silentia vitæ."

May I do this without vexing either myself or my neighbour!

[1] Rustic. 17, sq. [G.]

I only now add the entreaty that you may take in good part the present pledge of my good-will towards you, and of the honour in which I hold you. For the errors and inadvertencies of the work you have no share whatsoever in the blame. All the responsibilities are mine; nor will *my folly cause your punishment*.[1] Of one gain, at least, I am sure. I shall not lose the fruit of my labour, if, even from my blunders and hallucinations, I can draw an opportunity of proclaiming to the world the extent of my friendship for you, and the degree to which, in all truth and sincerity, I am most devotedly yours,

THOMAS SYDENHAM.

[1] "Quicquid delirant reges, plectuntur Achivi."—Hor. Ep. 1, 2, 14. [G.]

EPISTLE DEDICATORY TO THE FIRST EDITION.

TO THE

MOST ILLUSTRIOUS AND MOST EXCELLENT

MASTER ROBERT BOYLE.

MOST TRULY NOBLE SIR,—

To such a degree does anything, in any way appertaining to a person so truly and wholly noble as yourself, awaken the immediate attention of good and learned men, that I can at once foresee the avidity with which they will inquire into the grounds and reasons, whereon I have relied in venturing to crave the authority of a name so greatly celebrated as your own, as a warrant to this, my work. Neither do I overlook the common and customary forms of speech that are generally adopted by those who are in a like predicament with myself. It is most true, that I, like the rest, might make an open and public proclamation of many and great favours conferred upon me by your goodness, and also that I might announce myself as the architect of some durable monument, the exponent of my gratitude, wherein the fulness of my language should be the measure of my respect and reverence. To speak the truth, I have no such thoughts as these in my present address. It is no part of my intention to descend into the details of your praise, or to enlarge upon the transcendency of your parts; although these last are so great as to raise you to the level of the most famous names of foregone ages, such indeed, as would have enriched any author with an exuberant supply of subject-matter, and have honoured any book whereof they stood at the head. All this, however, is shown in full by your own published Treatises; having which, you require no second herald, whose subsidiary voice should swell the loud note of your celebrity. These trite and common-

place arguments I discard, and I profess to have placed my work under your patronage for the two following reasons: It was on your persuasion and recommendation that I undertook the subject; and it is by your own experience that the truth and efficacy of some of the matters delivered in the Treatise, have occasionally been tested. Hence you are made a sufficient witness; since in the fulness of your humanity you have gone so far as to accompany me in the visiting of the sick. Herein you have exhibited a kind spirit, descending to offices, which, however honorable, are little recognised by the spirit of the age we live in.

Upon these grounds I earnestly request you to look upon my little work with a favorable eye, and to lend it the ornament of your name; and as no one knows better than yourself the difference between things swollen out, and things really great, I hope that will not find less favour for being neither vast in bulk, nor stuffed out with the spoils of former authors: I have no wish to disturb their ashes.

Over and above the fevers which will here be considered, there are many other diseases, whereof the treatment is insufficient, and (according to my principles) the method irrational. To have kept my faith, I ought to have written upon these as well. However, in an age where subtle speculations are of higher value, and give more pleasure than genuine practice, I preferred to try the fortune of a smaller work, before I rashly ventured upon a fuller one.

As to what remains, I must add, most illustrious Sir, that the object of the present epistle will be fully attained, if I succeed in craving pardon for my boldness in the use of your name, and in making a most grateful acknowledgment of your many services towards me. In all cases I shall owe you a debt of gratitude for manifold kindnesses, and never cease to be your most obliged and humble servant,

THOMAS SYDENHAM.

(1666.)

PREFACE TO THE THIRD EDITION.

1. Inasmuch as the structure of the human frame has been so set together by Nature, that it is unable, from the continuous flux of particles, to remain unchanged; whilst, from the action of external causes, it is subjected to influences beyond its own: and since, for these reasons, a numerous train of diseases has pressed upon the earth since the beginning of time;[1] so without doubt the necessity of investigations into the Art of Healing has exercised the wit of mankind for many ages before the birth, not only of the Greek but of the Egyptian Esculapius, the latter being earlier by a thousand years than the former.

2. And, indeed, as no man can say who it was that first invented the use of clothes and houses against the inclemency of the weather, so also can no investigator point out the origin of Medicine—mysterious as the sources of the Nile. There has never been a time when it was not. Like other arts, however, it has been zealously or remissly cultivated, according to the differences of time and place.

3. How much the ancients, and pre-eminently amongst these Hippocrates, performed is known to all. It is to these, and to the compilers from their writings, that we owe the greater part of our skill in therapeutics.

Besides these, however, in the succeeding ages, others have been conspicuous for their industry: men who, by attending to anatomy, to pharmacy, to the *methodus medendi*, have done their best towards enlarging the boundaries of medicine. Nor have there been wanting those who, in our own time, and in our own island, have done good work in each kind of science that advances medicine. The praises of these I leave to better pens than my own.

[1] . . . . . "nova Febrium
Terris incubuit cohors." (Hor. 1.)

4. Nevertheless, how great soever the efforts of others may have been, I, for my own part, have always considered that the breath of life would have been to me a vain gift, unless I, working in the same mine with them, contributed my mite to the treasury of physic. Wherefore, after long meditation, and the diligent and faithful observations of many years, I at length determined—firstly, to state my opinion as to the means by which the science of medicine was to be advanced; secondly, to publish a sample of my endeavours in that department.

5. I conceive that the advancement of medicine lies in the following conditions:

There must be, in the first place, a history of the disease; in other words, a description that shall be at once graphic and natural.

There must be, in the second place, a *Praxis*, or *Methodus*, respecting the same, and this must be regular and exact.

To draw a disease in gross is an easy matter. To describe it in its history, so as to escape the censure of the great Bacon, is far more difficult. Against some pretenders in this way, he launches the following censure—"*We are well aware that there existeth such a thing as a Natural History; full in bulk, pleasant from its variety, often curious from its diligence. Notwithstanding, whoever would take away from the same the citations of authors, the empty discussions, and, finally, the book-learning and ornaments, which are fitter for the convivial meetings of learned men than for the establishment of a Philosophy, would find that it dwindled into nothing. Such a natural history is far distant from the one we contemplate.*"[1]

In like manner it is exceedingly easy to propound some common-place cure for a complaint. It is far harder, however, to translate your words into actions, and to square your results with your promises. This is well known to those who have learned that there occur in practical writers numerous diseases, which neither the authors themselves, nor any persons else besides, have been able to cure.

[1] "Satis scimus haberi Historiam Naturalem, mole amplam, varietate gratam, diligentia sæpius curiosam: attamen si quis ex ea fabulas, et authorum citationes, et inanes controversias, philologiam denique et ornamenta eximat (quæ ad convivales sermones hominumque doctorum noctes potius quam ad instituendam Philosophiam sunt accommodata) ad nil magni res recidet. Longe profecto abest ab ea historia quam animo metimur."—Descript. Glob. Intellect., c. iii, vol. xi, p. 8. [G.]

6. In respect to the histories of a disease, any one who looks at the case carefully, will see at once that an author must direct his attention to many more points than are usually thought of. A few of these are all that need be noticed at present.

7. In the first place, it is necessary that all diseases be reduced to definite and certain *species*, and that, with the same care which we see exhibited by botanists in their phytologies; since it happens, at present, that many diseases, although included in the same genus, mentioned with a common nomenclature, and resembling one another in several symptoms, are, notwithstanding, different in their natures, and require a different medical treatment.

We all know that the term *thistle* is applied to a variety of plants; nevertheless, he would be a careless botanist, indeed, who contented himself with the general description of a *thistle;* who only exhibited the marks by which the class was identified; who neglected the proper and peculiar signs of the species, and who overlooked the characters by which they were distinguished from each other. On the same principle, it is not enough for a writer to merely note down the common phenomena of some multiform disease; for, although it may be true that all complaints are not liable to the same amount of variety, there are still many which authors treat alike, under the same heads, and without the shadows of a distinction, whilst they are in their nature as dissimilar as possible. This I hope to prove in the forthcoming pages.

8. More than this—it generally happens that even where we find a *specific* distribution, it has been done in subservience to some favorite hypothesis which lies at the bottom of the true phenomena; so that the distinction has been adapted not to the nature of the complaint, but to the views of the author and the character of his philosophy. Many instances prove the extent to which medicine has been injured by a want of accuracy upon this point. We should have known the cures of many diseases before this time if physicians, whilst with all due good-will they communicated their experiments and observations, had not been deceived in their disease, and had not mistaken one species for another. And this, I think, is one reason why the Materia Medica has grown so much and produced so little.

9. In writing the history of a disease, every philosophical hypothesis whatsoever, that has previously occupied the mind of the author, should lie in abeyance. This being done, the clear and natural phenomena of the disease should be noted —these, and these only. They should be noted accurately, and in all their minuteness; in imitation of the exquisite industry of those painters who represent in their portraits the smallest moles and the faintest spots. No man can state the errors that have been occasioned by these physiological hypotheses. Writers, whose minds have taken a false colour under their influence, have saddled diseases with phenomena which existed in their own brains only; but which would have been clear and visible to the whole world had the assumed hypothesis been true. Add to this, that if by chance some symptom really coincide accurately with their hypothesis, and occur in the disease whereof they would describe the character, they magnify it beyond all measure and moderation; they make it all and in all; the molehill becomes a mountain; whilst, if it fail to tally with the said hypothesis, they pass it over either in perfect silence or with only an incidental mention, unless, by means of some philosophical subtlety, they can enlist it in their service, or else, by fair means or foul, accommodate it in some way or other to their doctrines.

10. Thirdly; it is necessary, in describing any disease, to enumerate the peculiar and constant phenomena apart from the accidental and adventitious ones: these last-named being those that arise from the age or temperament of the patient, and from the different forms of medical treatment. It often happens that the character of the complaint varies with the nature of the remedies, and that symptoms may be referred less to the disease than to the doctor. Hence two patients with the same ailment, but under different treatment, may suffer from different symptoms. Without caution, therefore, our judgment concerning the symptoms of disease is, of necessity, vague and uncertain. Outlying forms of disease, and cases of exceeding rarity, I take no notice of. They do not properly belong to the histories of disease. No botanist takes the bites of a caterpillar as a characteristic of a leaf of sage.

11. Finally, the particular seasons of the year which favour particular complaints are carefully to be observed. I am

ready to grant that many diseases are good for all seasons. On the other hand, there is an equal number that, through some mysterious instinct of Nature, follow the seasons as truly as plants and birds of passage. I have often wondered that this disposition on the part of several diseases, obvious as it is, has been so little observed; the more so, as there is no lack of curious observations upon the planets under which plants grow and beasts propagate. But whatever may be the cause of this supineness, I lay it down as a confirmed rule, that the knowledge of the seasons wherein diseases occur is of equal value to the physician in determining their species and in effecting their extirpation; and that both these results are less satisfactory when this observation is neglected.

12. These, although not the only, are the main points to be attended to in drawing up the history of a disease. The practical value of such a history is above all calculation. By the side thereof, the subtle discussions, and the minute refinements wherewith the books of our new school are stuffed full, even *ad nauseam*, are of no account. What short way—what way at all—is there towards either the detection of the morbific cause that we must fight against, or towards the indications of treatment which we must discover, except the sure and distinct perception of peculiar symptoms? Upon each of these points the slightest and most unimportant circumstances have their proper bearings. Something in the way of variety we may refer to the particular temperament of individuals; something also to the difference of treatment. Notwithstanding this, Nature, in the production of disease, is uniform and consistent; so much so, that for the same disease in different persons the symptoms are for the most part the same; and the selfsame phenomena that you would observe in the sickness of a Socrates you would observe in the sickness of a simpleton. Just so the universal characters of a plant are extended to every individual of the species; and whoever (I speak in the way of illustration) should accurately describe the colour, the taste, the smell, the figure, &c., of one single violet, would find that his description held good, there or thereabouts, for all the violets of that particular species upon the face of the earth.

13. For my own part, I think that we have lived thus long without an accurate history of diseases, for this especial reason;

viz. that the generality have considered that disease is but a confused and disordered effort of Nature thrown down from her proper state, and defending herself in vain; so that they have classed the attempts at a just description with the attempts to wash blackamoors white.

14. To return, however, to our business. As truly as the physician may collect points of diagnosis from the minutest circumstances of the disease, so truly may he also elicit indications in the way of therapeutics. So much does this statement hold good, that I have often thought, that provided with a thorough insight into the history of any disease whatsoever, I could invariably apply an equivalent remedy; a clear path being thus marked out for me by the different phenomena of the complaint. These phenomena, if carefully collated with each other, lead us, as it were, by the hand to those palpable indications of treatment which are drawn, not from the hallucinations of our fancy, but from the innermost penetralia of Nature.

15. By this ladder, and by this scaffold, did Hippocrates ascend his lofty sphere—the Romulus of medicine, whose heaven was the empyrean of his art. He it is whom we can never duly praise. He it was who then laid the solid and immoveable foundation for the whole superstructure of medicine, when he taught that *our natures are the physicians of our diseases.*[1] By this he ensured a clear record of the phenomena of each disease, pressing into his service no hypothesis, and doing no violence to his description; as may be seen in his books 'De Morbis,' 'De Affectionibus,' &c. Besides this, he has left us certain rules, founded on the observation of the processes of Nature, both in inducing and removing disease. Of this sort are the 'Coacæ Prænotiones,' the 'Aphorisms,' &c. Herein consisted the theory of that divine old man. It exhibited the legitimate operations of Nature, put forth in the diseases of humanity. The vain efforts of a wild fancy, the dreams of a sick man, it did *not* exhibit.

Now, as the said theory was neither more nor less than an exquisite picture of Nature, it was natural that the practice should coincide with it. This aimed at one point only—it strove to help Nature in her struggles as it best could. With this view, it limited the province of medical art to the support of

[1] Νούσων φύσεις ἰητροί.—Epid. vi, 5, 1. t. iii, p. 606. [G.]

Nature when she was enfeebled, and to the coercion of her when she was outrageous; the attempt on either side being determined by the rate and method whereby she herself attempted the removal and the expulsion of disease. The great sagacity of this man had discovered that Nature by herself *determines diseases, and is of herself sufficient in all things against all of them.*[1] This she is, being aided by the fewest and the simplest forms of medicine. At times she is independent of even these.

16. The other method whereby, in my opinion, the art of medicine may be advanced, turns chiefly upon what follows, viz. that there must be some fixed, definite, and consummate *methodus medendi*, of which the commonweal may have the advantage. By *fixed, definite,* and *consummate,* I mean a line of practice which has been based and built upon a sufficient number of experiments, and has in that manner been proved competent to the cure of this or that disease. I by no means am satisfied with the record of a few successful operations, either of the doctor or the drug. I require that they be shown to succeed universally, or at least under such and such circumstances. For I contend that we ought to be equally sure of overcoming such and such diseases by satisfying such and such intentions, as we are of satisfying those same intentions by the application of such and such sorts of remedies; a matter in which we generally (although not, perhaps, always) can succeed. To speak in the way of illustration, we attain our ends when we produce stools by senna, or sleep by opium.

I am far from denying that a physician ought to attend diligently to particular cases in respect to the results both of the method and of the remedies which he employs in the cure of disease. I grant, too, that he may lay up his experiences for use, both in the way of easing his memory and of seizing suggestions. By so doing he may gradually increase in medical skill, so that eventually, by a long continuance and a frequent repetition of his experiments, he may lay down and prescribe for himself a *methodus medendi*, from which, in the cure of this or that disease, he need not deviate a single straw's breadth.

17. Nevertheless, the publication of particular observations is, in my mind, of no great advantage. Where is the particular importance in just telling us that once, twice, or even oftener,

[1] Τὰς νούσους κρίνει, καὶ ἐξαρκέει τὰ πάντα πᾶσιν.—De Aliment., t. ii, p. 19. [G.]

this disease has yielded to that remedy? We are overwhelmed as it is, with an infinite abundance of vaunted medicaments, and here they add a new one. Now, if I repudiate the rest of my formulæ, and restrict myself to this medicine only, I must try its efficacy by innumerable experiments, and I must weigh, in respect to both the patient and the practice, innumerable circumstances, before I can derive any benefit from such a solitary observation.

But if the medicine never fails in the hands of the observer, why does he confine himself to particular cases? He must either distrust himself, or he must desire to impose upon the world in detail, rather than in gross. How easy a matter it is to write thick volumes upon these points is known even to beginners. It is also known that the foundation and erection of a perfect and definite *methodus medendi* is a work of exceeding difficulty. If, in each age of the world, a single person only had properly treated upon one single disease, the province of the physician, or the art of healing, would long ago have reached its height; and would have been as complete and perfect as the lot of humanity admits. It is ruin of our prospects to have departed from our oldest and best guide, Hippocrates, and to have forsaken the original *methodus medendi*. This was built upon the knowledge of immediate and conjunct causes, things of which the evidence is certain. Our modern doctrine is a contrivance of the word-catchers; the art of talking rather than the art of healing.

That I may not seem to speak these things rashly, I must be allowed to make a brief digression; and to prove that those remote and ultimate causes in the determination and exhibition of which the vain speculations of curious and busy men are solely engaged, are altogether incomprehensible and inscrutable; and that the only causes that can be known to us, and the only ones from which we may draw our indications of treatment, are those which are proximate, immediate, and conjunct.

18. We must begin with noticing that humours may be retained in the body longer than is proper; Nature being unable to begin with their concoction, and to end with their expulsion. They may also contract a morbific disposition from the existing atmospheric constitution. Finally, they may

act the part of poisons from the influence of some venomous contagion. From any one of these causes, or from any cause akin to them, the said humours become exalted into a *substantial form* or *species*; and these substantial forms or species manifest themselves in disorders coincident with their respective essences. Of these disorders the symptoms, in the eyes of the unwary, originate either in the nature of the part which the humour has attacked, or else in the character of the humour itself anterior to its specific metamorphosis. Nevertheless, in their true nature, they are the disorders that depend upon the essence of the said species recently exalted to the particular degree in question. Hence every specific disease is a disorder that originates from this or that specific exaltation, or (changing the phrase) from the specification of some juice in the living body. Under this head may be comprised the greatest part of those diseases that are reducible to some given form or type, in the production and maturation whereof Nature binds herself to a certain method as stringently as she does with plants and even animals. Each plant and animal has its proper and peculiar disorders. In like manner, each juice has its exaltations as soon as it has broken out into a species. Of this we have a clear, visible, and daily proof in the different species of excrescences, which trees and fruit exhibit in the shape of moss, and mistletoe, and fungi, and the like. Whether arising from a perversion and depravation of the nutritive juice, or from any other cause, these excrescences are, each and all, essences or species wholly distinct and different from the parent stock, whether tree or shrub.

19. Let a person seriously and accurately consider the phenomena which accompany such a fever as a quartan ague. It begins almost always in autumn; it keeps to a regular course of succession; it preserves a definite type; its periodical revolutions, occurring on the fourth day, if undisturbed by external influences, are as regular as those of a watch or any other piece of machinery; it sets in with shivers and a notable feeling of cold, which are succeeded by an equally decided sensation of heat, and it is terminated by a most profuse perspiration. Whoever is attacked must bear with his complaint till the vernal equinox, there or thereabouts.

Now putting all this carefully together, we find reasons for

believing that this disease is a species equally cogent with those that we have for believing a plant to be a species. The plant springs from the earth; the plant blooms; the plant dies: the plant does all this with equal regularity. All its other affections are those of its essence. It cannot easily be comprehended how the disease in question can arise from a combination of either principles or evident qualities, whilst a plant is universally recognised as a substance, and as a distinct species in nature. Nevertheless, I cannot deny that whereas all species, both of plants and animals, with the exception of a very few, subsist by themselves, the species of disease depend upon the humours that engender them.

20. Now, although it appears, from what has been said, that we have shown reason for considering the causes of the majority of diseases as inscrutable and inexplicable, the question as to how they may be cured is, nevertheless, capable of solution.

All that we have just dealt with has been the case of the remote causes. Here it is evident to every one, that curious speculators lose their labour; since the investigation and illustration of primary and ultimate causes is a neglect of our capabilities, and a violation of nature. Hand in hand with this is the contempt for those causes that ought to be, and which can be understood; which lie before our feet; which require no rotten supports; which appeal to the understanding at once; which are revealed by either the testimony of our senses, or by anatomical observations of long standing. Such are the causes which we call conjunct and immediate. As it is clearly impossible that a physician should discover those causes of disease that are not cognisable by the senses, so also it is unnecessary that he should attempt it. It is quite sufficient for him to know whence the mischief *immediately* arises, and for him to be able to distinguish with accuracy between the effects and symptoms of the complaint which he has in hand, and those of some similar one. In a pleurisy, for instance, a man may work much, and work in vain, before he will understand the vicious crasis, and the incoherent texture of blood which is the primary cause of the disease; yet, if he know rightly the cause by which it is *immediately* produced, and if he can rightly discriminate between it and other diseases, he will be as certain to succeed in his attempts at a cure, as

if he had attended to idle and unprofitable searches into remote causes. This, however, is a digression.

21. Now if any one ask whether, in addition to the two aforesaid *desiderata* in medical science (viz., the true and genuine history of diseases, and the regular and definite *methodus medendi*), a third may not also be enumerated, viz., the discovery of specific remedies, he will find that I agree with, and that I second his doctrine. For the cure of acute diseases the method seems the best; since, inasmuch as in these Nature herself establishes some process of evacuation, whatever method promotes such evacuation, and thereby helps Nature, conduces, of necessity, towards the cure of the disease. Nevertheless, by the help of specifics, if such could be found, the patient might find a shorter way to his recovery. And such is desirable. He might also (which is more important still) be placed beyond the pale of those dangers which follow the aberrations of Nature; for into such, during the expulsion of morbific causes, and in spite of the best and most powerful assistance from the physician, she frequently and unwillingly has fallen.

22. In respect to the cure of chronic diseases, although I have no doubt but that a greater progress in it than is expected at the first glance may be hoped for from the method alone, I am still convinced that, in the cure of many of the most important that afflict humanity, our method is unavailing. This happens because in chronic diseases the method of Nature herself for the ejection of the morbific matter is less efficacious than in the acute ones; whilst it is by joining hands with Nature, and by aiming properly at the same mark, that we are enabled to destroy the disease. In overcoming a chronic disease, he has the best and truest claim to the name of physician, who is in possession of the medicine that shall destroy the *species* of the disease, not he who merely substitutes one primary or secondary quality for another. This he can do without extinguishing the species at all; i. e., a gouty patient may be cooled or heated as the case may be, and his gout continue unconquered. This method of merely introducing different qualities can no more effect the direct destruction of specific diseases, than a sword can quench a flame. What can be done by cold, or heat, or wet, or dry, or by any of the secondary qualities that depend upon them, against a disease whose essence consists in none of them?

23. Any one who objects to me that a sufficiency of specific remedies is already known to the world, will, upon a due consideration of the subject, take the same view with myself. I am sure of this, since the only medicine that supports his doctrine is the Peruvian bark. Medicines that *specifically* answer to the indications of treatment, and medicines that *specifically* cure diseases, are as wide as the poles asunder. In the first case, we satisfy the curative indications, and drive away the ailment: in the second, we take no cognisance of the indication or intention at all, whilst we destroy the disease directly and immediately. For instance, mercury and sarsaparilla are commonly called specifics in syphilis. Nevertheless, they are no proper and direct specifics at all; nor will they be considered as such, until it be shown by cogent and irrefragable proofs that the one produces its beneficial effects without salivation, and the other without diaphoresis. In this way many different diseases are cured by their different appropriate evacuations; but it is the evacuation that performs the cure, the medicine being specific to the evacuation. To the disease itself, self-sufficiently and directly, they are no more specific than a lancet is specific to a pleurisy.

24. Specific medicines, in the restricted sense of the word, are by no means of every-day occurrence. They do not fall to every man's lot. Nevertheless, I have no doubt, but that out of that abundant plenitude of provision for the preservation of all things wherewith Nature burgeons and overflows (and that, under the command of the Great and Most Excellent Creator), provision also has been made for the cure of the more serious diseases which afflict humanity, and that near at hand and in every country. It is to be lamented, indeed, that the nature of plants is not more thoroughly understood by us. In my mind, they bear off the palm from all the rest of the *Materia Medica*. They offer also the most reasonable hopes for the discovery of remedies of the sort in question. The parts of animals are too like those of the human body: minerals are too unlike. That minerals, however, are more energetic in satisfying indications than either of the two other classes of remedies, and that the difference in character is the reason for their doing so, I freely confess. Still they are not specific remedies in the sense and manner explained above.

For my own part, I can claim nothing beyond the credit of

having undergone the labour and trouble of considering these matters carefully, and that for many years past. Nevertheless, I have not yet been so successful as to venture upon the public with my ideas upon these things at once with prudence and confidence.

25. Although, however, the vegetable world is my favorite source for medicines, I am far from despising those excellent remedies which we procure from the other two kingdoms; and which having been discovered, in either this or any other age, by human labour and human industry, are found to satisfy the intentions of treatment. Amongst these, the place of honour is due to what are called *Dr. Goddard's drops*. They are prepared by Dr. Goodhall, a learned man, and a skilful investigator both of methods and remedies. I give these a just preference over all other volatile spirits whatsoever for energetically and efficaciously attaining the end for which they are applied.

26. To conclude—having in this introduction promised that I would give a sample of those improvements which I have done my best to effect for medicine, I here attempt to fulfil my promise by publishing 'A History and Cure of the Acute Diseases.' In doing this I am well aware that I shall exhibit for the benefit of the idle and ignorant the labour of the best years of my life, and the results of much toil both of mind and body. I know, too, the bad temper of the age I live in. I shall reap only a harvest of abuse. Better would it have been for my present fame to have continued some vain and useless speculation. Be it so. I wait for my reward elsewhere.

27. Now if any one object that men as conversant with medicine as myself differ from my doctrines, I can only answer that my business has been to support my own observations, not to discuss the opinions of others. In doing this, I beg the reader's patience, not his favour. The facts themselves will shortly speak for themselves; and they alone will show whether on the one side I act with truth and honesty, or whether, on the other, like a profligate and immoral and wicked man, I am to become a murderer even in the grave. I ask pardon where the history is less careful than I meant it to be, since I wish less to exhaust my subject than to encourage those who have better parts than myself to undertake hereafter what I now attempt imperfectly.

28. One point still remains to be indicated to the reader. I have no intention of swelling out the following pages with an infinite number of particular cases, under the idea of claiming credit for the method that they embody. It would be vain and wearisome to repeat in detail the points which I have reduced to a general expression. I consider it sufficient to append here and there, at the conclusion of the general statement, some particular observation containing the substance of the method preceding; and I do this more especially for the last few years. In the mean time I warrant my general methods. Each has been established and confirmed by reiterated experiments.

29. Whoever expects a great mass of remedies and formulæ in the following pages will be disappointed. The physician must apply these according to circumstances and his discretion. I only mention the indications he must satisfy, and that in respect to their order and their time. True medicine consists in the discovery of the real indications rather than in the excogitation of remedies. Those who have neglected this have put arms into the hands of the empiric, and taught him to imitate the physician.

30. One objection against me will be made by the vulgar and unthinking only, viz. that of having renounced the proper pomp of physic, and of having recommended medicines so plain and simple as not to be reducible to the 'Materia Medica.' Wise men know this—*whatever is useful is good.* They know, also, that Hippocrates recommended bellows[1] for the colic, and nothing at all for the cancer.[2] They know, too, that similar treatment is to be discovered in almost every page of his writings; and withal that his merits in medicine are as great as if he had loaded his pages with the most pompous formulæ.

31. I also intended to have written a history of Chronic Diseases, or at least one on those that I had most frequently treated. As this, however, is a work of great labour, and as the present lucubrations are experimental, I waive the subject for the present.

[1] De Morbis, iii, tom. ii, p. 305. [G.]

[2] Aphor. vi, 38; tom. iii, p. 754. [G.]

PREFACE TO THE FIRST EDITION.

WHOEVER takes up medicine should seriously consider the following points: firstly, that he must one day render to the Supreme Judge an account of the lives of those sick men who have been intrusted to his care. Secondly, that such skill and science as, by the blessing of Almighty God, he has attained, are to be specially directed towards the honour of his Maker, and the welfare of his fellow-creatures; since it is a base thing for the great gifts of Heaven to become the servants of avarice or ambition. Thirdly, he must remember that it is no mean or ignoble animal that he deals with. We may ascertain the worth of the human race, since for its sake God's Only-begotten Son became man, and thereby ennobled the nature that he took upon him. Lastly, he must remember that he himself hath no exemption from the common lot, but that he is bound by the same laws of mortality, and liable to the same ailments and afflictions with his fellows. For these and like reasons let him strive to render aid to the distressed with the greater care, with the kindlier spirit, and with the stronger fellow-feeling.

2. Many, however, will in no wise allow themselves to be regulated by these considerations, as is clearly manifest both from their practice and their way of life. Some are swollen up with pride, and puffed out with the vain conceit of their knowledge; so that these matters seem small in their eyes. They can only come down to them negligently and contemptuously. They care nothing for the unfortunates committed to their charge. The Supreme Being they either disown or disregard. The others either gape and grow greedy for gain, or else are borne away by the hopes of some small celebrity; in either case looking to their purses or to their fame.

In all cases it behoves each and all of those physicians, who have the desire not only to *seem* but to *be* prudent and honest,

to acknowledge and entreat the Divine Goodness, that from this they may look for wisdom and good fortune; and they ought not to be satisfied with simply giving health to the sick, but they should strive to add greater certainty to the art that they administer; and they should so direct their experiments, that the science of medicine may grow day by day more clear and more efficient. In this way the human race may reap the advantages thereof generally, and with safety, even after they themselves have been laid in their graves.

3. In full consciousness of my high duty do I lay before the world this my *method of treating fevers, founded upon my own observations.* For since, through the blessing of God, which has favoured my unworthy efforts, I may have appeared to have discovered surer and more genuine principles of treatment than such as are afloat amongst the generality, I consider that I serve the cause of those who study true medicine in making them public. This I now attempt to do in a liberal spirit, and with an honest mind. To some it may appear that the method which I adopt is based upon insecure foundations. I am, however, on my own part, fully convinced, and I truly affirm, that it is altogether proved by a manifold experience.

4. Now clearly as I foresee that there will be many who, from the desire of finding fault, or from a feeling of pride, which teaches them to spurn and despise all beside themselves, will rise up and lay to my charge either the affectation of novelty or the support of absurdities; foreseeing, also, that even where my practice has been tried, and its results been recognised, it will be asserted that MY statements are anything but new, and that the world has long known them. I have, notwithstanding, never allowed myself to be deterred from communicating the following pages to those of my fellow-creatures who unite the love of truth with the love of their kind. It is my temper and disposition to be careless of both the sayings and the doings of the over-proud and the over-critical. To the wise, however, and the honest I wish to say thus much:—I have in no wise whatever distorted either fact or experiment; I told the truth, the whole truth, and nothing but the truth; and I have little fear but that they also, if they will make similar observations, will add their voices to mine. In the meanwhile I ask the pardon, and submit to the arguments, of

better judges than myself for all errors of theory. Perhaps I may myself hereafter on many points change my mind of my own accord. As I have no lack of charity for the errors of others, I have no love of obstinately persisting in my own.

AUTHORI

IN

TRACTATUM EJUS DE FEBRIBUS.

"Febriles æstus, victumque ardoribus orbem
Flevit, non tantis par Medicina malis;
Nam post mille artes, medicæ tentamina curæ,
Ardet adhuc Febris, nec velit arte regi.
Præda sumus flammis; solum hoc speramus ab igne,
Ut restet paucus, quem capit urna, cinis.
Dum quærit Medicus Febris causamque modumque,
Flammarum et tenebras, et sine luce faces;
Quas tractat patitur flammas, et Febre calescens,
Corruit ipse suis victima rapta focis:
Qui tardos potuit morbos, artusque trementes
Sistere, Febrili se videt igne rapi.
Sic faber exesos fulsit tibicine muros,
Dum trahit antiquas lenta ruina domos;
Sed si flamma vorax miseras incenderit ædes,
Unica flagrantes tunc sepelire salus.
Fit fuga, tectonicas nemo tunc invocat artes,
Cum perit artificis non minus usta domus.
Se tandem Sydenham Febrisque scholæque furori
Opponens, morbi quærit et artis opem.
Non temere incusat tectæ putredinis ignes;
Nec fictus, Febres qui fovet, humor erit;
Non bilem ille movet, nulla hic pituita: salutis
Quæ spes, si fallax ardeat intus aqua?
Nec doctas magno rixas ostentat hiatu,
Queis ipsis major Febribus ardor inest.
Innocuas placide corpus jubet urere flammas,
Et justo rapidos temperat igne focos.
Quid Febrim extinguat, varius quid postulat usus,
Solari ægrotos qua potes arte, docet.

Hactenus ipsa suum timuit Natura calorem,
Dum sæpe incerto, quo calet, igne perit:
Dum reparat tacitos male provida sanguinis ignes,
Prælusit busto, fit calor iste rogus.
Jam secura suas foveant præcordia flammas,
Quem Natura negat, dat Medicina modum.
Nec solum faciles compescit sanguinis æstus,
Dum dubia est inter spemque metumque salus;
Sed fatale malum domuit, quodque astra malignum
Credimus, iratum vel genuisse Stygem.
Extorsit Lachesi cultros, Pestique venenum
Abstulit, et tantos non sinit esse metus.
Quis tandem arte nova domitam mitescere Pestem
Credat, et antiquas ponere posse minas?
Post tot mille neces, cumulataque funera busto,
Victa jacet, parvo vulnere, dira lues.
Ætheriæ quanquam spargant contagia flammæ,
Quicquid inest istis ignibus, ignis erit.
Delapsæ cœlo flammæ licet acrius urant,
Has gelida extingui non nisi morte putas?
Tu meliora paras, victrix Medicina; tuusque,
Pestis quæ superat cuncta, triumphus erit.
Vive, Liber, victis Febrilibus ignibus; unus
Te simul et mundum qui manet, ignis erit."

J. LOCK, A.M.
(1668.) *Ex Ædc Christi Oxon.*

MEDICAL OBSERVATIONS

CONCERNING THE

HISTORY AND CURE OF ACUTE DISEASES.

SECTION I.

CHAPTER I.

ON ACUTE DISEASES IN GENERAL.

1. As far as I am capable of a judgment, the dictates of reason are as follows, namely, that 'a disease, however much its cause may be adverse to the human body, is nothing more than an effort of Nature, who strives with might and main to restore the health of the patient by the elimination of the morbific matter.' For, since it is the will of God, the Supreme Arbiter and Regulator of all things, that the human frame be, by nature, adapted to the reception of impressions from without, it follows that it must also be liable to a variety of maladies. These arise partly from the particles of the atmosphere, partly from the different fermentations and putrefactions of the humours. The first insinuate themselves amongst the juices of the body, disagree with them, mix themselves up with the blood; and, finally, taint the whole frame with the contagion of disease. The second are confined within the body longer than they ought to be, its powers having proved incompetent, first to their digestion, afterwards to their excretion. This may arise from either their bulk, or the incongruity of their qualities.

2. Such are the conditions complicating and interwoven with the very essence of humanity, and that so closely that no one can succeed in wholly making himself independent of them. Hence Nature, in the concatenation of symptoms, has provided a method for the elimination and exclusion of the

peccant and foreign matter, which, otherwise, would undo the whole fabric of our frame; and infinitely oftener than we find to be the case would she gain her end, and attain the restoration that she aims at in these ungrateful remedies, if she were not diverted by ignorant men from the straight way that, of herself, she holdeth. When left, indeed, to herself, she may do too much or too little, and, in either case, kill the patient. This, however, is only her obedience to the iron and indissoluble laws of mortality—

"Debemur morti nos nostraque,"[1]

or, as Boethius writes, in full consonance with the truth and nature—

"Constat æterna positumque lege est,
Constet ut genitum nihil."[2]

3. Now, just for the sake of proving the truth of the above-made statement by one or two examples, let us ask what is the nature of plague? Is it aught else than a complication of symptoms which Nature puts in play, in order that, through the natural eliminations, either in the way of abscesses, or by the help of some other form of eruption, she may expel from the body those infectious particles that we have taken in along with the air that we breathe? And what is gout? It is a provision of Nature to purify the blood of old men, and to purge the deep parts of the body. Such, at least, is the language of Hippocrates. The same may be said of all other diseases, fully formed.

4. This undertaking Nature performs at different rates; quickly or slowly, according to the different processes by which she strives to expel the morbid influence.

As often as she calls in the aid of fevers for the isolation of the tainted particles from the remainder of the blood; and when, by a further process, either by diaphoresis or diarrhœa, by eruptions, or some other evacuation, she expels the particles thus isolate; and when whatsoever is done at all is done amidst the subtile and spirituous constituents of the volume of the blood, and that with a corresponding disturbance; when this, I say, takes place, it becomes a matter of absolute necessity, not only that the recovery or death of the patient be

[1] Horat., Epistol. ad Pison., 63. [G.]
[2] De Consolat. Philosoph., ii, 3. [G.]

determined with rapidity, but that grave and terrible symptoms be associated with such an effort of Nature; for she is trying her strength, and must either expel the mischief by a crisis, or herself faint in the struggle.

This is the sort to which the diseases which we called acute belong, since it is with rapidity, with commotion, and with danger, that they advance to their proper status.

To speak, however, with less precision, but with equal truth, those diseases also are to be considered acute which, although, in regard to the whole of their paroxysms, taken collectively, they may be said to move slowly, yet in respect to any particular paroxysm, have a rapid progress, and terminate quickly in a crisis. Such are all intermittent fevers.

5. Occasionally, however, the parts that contain the disease are, by their nature, incompetent to determine a fever towards them, and, so, unable to effect a full separation of the morbific matter. Occasionally, also, it fastens upon a part wholly unable to get rid of it at all; and this may arise either from the particular conformation of the part itself, as is the case with the morbid matter impacted in the nerves of paralytics, and with the pus in the cavities of a thoracic empyema, or else from a deficiency of the natural heat and animal spirits, as is the case with the phlegm falling upon the lungs of old men worn with coughs. Lastly, it may be referred to a continuous afflux of new matter. By this the blood becomes vitiated; and, from its excessive disposition to eliminate the same, distresses and overwhelms the parts.

Now, in all these cases, the morbific matter either never attains its proper coction at all, or else attains it slowly, and the diseases which originate therein are properly called chronic diseases.

Classified, therefore, according to the two opposing principles mentioned above, diseases fall into the two classes of *acute* and *chronic*.

6. Of acute diseases—and it is these only that I mean at present to deal with—some are engendered through occult and inexplicable changes of the atmosphere. These taint the human frame; but they depend upon the peculiar *crases* of our blood and humours, only so far as these occult atmospheric influences have made an impression on them. Such

maladies continue their devastation during the continuance of the mysterious *skiey influences* in question, but not longer. Neither do they appear at other periods. These diseases are called *epidemics*.

7. Of acute diseases, others originate from the particular *anomalies* of particular bodies. There is no general cause for their existence, and they attack but few at a time. Again; with the exception of some which will be treated under their appropriate classes, they occur during any year, and at any period of the year, indifferently. These I call *intercurrent* or *sporadic*; inasmuch as they may occur at any time whatsoever during the presence of an epidemic. It is with the epidemics that I mean to begin, and I shall start with exhibiting their general history.

CHAPTER II.

ON EPIDEMIC DISEASES.

1. NOTHING, in my opinion, strikes the mind that contemplates the whole and open domain of medicine with greater wonder than the well-known varied and inconsistent character of those diseases which we call epidemic. It is not so much that they reflect and depend upon different conditions of climate in one and the same year, as that they represent different and dissimilar constitutions of different and dissimilar years.

2. The evident diversity of diseases is palpably shown, both by the difference and the peculiarities of their symptoms, and the variety of treatment that they require. From all which it is perfectly clear that, although the disorders in question may, to a certain degree, both in their external characters and in several symptoms common to many of them, appear to the careless observer to coincide, they are in reality, if we attend closely, of wholly different characters, as little like one another as coin and counters. I am not prepared to say that a very careful examination (such a one, however, as the brief life of a single mortal would be insufficient for) would not give us the fact of certain epidemics succeeding each other regularly and

in series, forming as it were a circle. On the other hand, they may attack us indiscriminately, irrespective of any regular order, dependent only upon the inscrutable constitutions of the atmosphere, and the mysterious successions of time.

3. This, at least, on the strength of a multiplicity of accurate observations, I am convinced of; viz. that diseases of the character alluded to, and more especially continued fevers, differ from one another like north and south, and that the remedy which would cure a patient at the beginning of a year, will kill him perhaps at the close. Again; that when once, by good fortune, I have hit upon the true and proper line of practice that this or that fever requires, I can (with the assistance of the Almighty), by taking my aim in the same direction, generally succeed in my results, respect being always had to the age and temperament of the patient, and to the other matters of the same sort. This lasts until the first form of epidemic becomes extinct, and until a fresh one sets in. Then I am again in a quandary, and am puzzled to think how I can give relief. And now, unless I use exceeding caution, and unless I exert the full energies of my mind, it is as much as (nay, it is more than) I can do to avoid risking the lives of one or two of the first who apply to me as patients. At length, however, I steadily investigate the disease, I comprehend its character, and I proceed straight ahead, and in full confidence, towards its annihilation.

4. Now much, and diligently, and to the best of my powers, as I have observed the different characters, in respect to the more manifest atmospheric changes of different years, and that with the view of detecting therein the reasons for this discrepancy amongst the epidemic diseases, I am free to confess that I cannot find out that I have proceeded one single inch in my way. The years that undoubtedly coincide in their appreciable atmospheric characters, differ in the diseases by which they are infested, and *vice versâ*.

5. This is how it is. There are different constitutions in different years. They originate neither in their heat nor their cold, their wet nor their drought; but they depend upon certain hidden and inexplicable changes within the bowels of the earth. By the effluvia from these the atmosphere becomes contaminate, and the bodies of men are predisposed and deter-

mined, as the case may be, to this or that complaint. This continues during the influence of this or that constitution, which, after the cycle of a few years, gives ground, and makes way for another. Each and all of these general constitutions take the melancholy characteristic of some proper and peculiar form of fever; a form that appears at no other period. Fevers of this sort we call *stationary fevers*.

6. I may also add that there exist different and peculiar temperaments or crases of the same year. Herein the fevers that occur are determined by the manifest qualities of the air, follow the general constitution of the year, come on sooner or later, and take more or less the character of epidemics. Besides this, however, the fevers which I have called *intercurrent*, and which occur in any or all years promiscuously, originate most especially in this or that manifest atmospheric temperament. Thus (to speak for the sake of illustration) pleurisies, quinsies, and other like ailments, generally prevail when long and severe cold is rapidly succeeded by sudden heat. Hence, it becomes possible that the *sensible* and *appreciable* qualities of the atmosphere may produce such fevers as appear under all constitutions indifferently; but not those which are proper and peculiar to certain particular ones. Nevertheless, we must admit that even the *sensible* qualities of the atmosphere have a predisposing effect upon our bodies even in the development of epidemics. The same may be said concerning any error as to the six *non-naturals*.[1]

7. We must observe, however, that some epidemics in this or that year are regular and uniform, with the same phenomena, and accompanied with a general conformity of symptoms, in the cases of those whom they attack; and that they take their leave and go off much in the same manner. In these, as being the most perfect of their *genus*, the true and authentic history of epidemic diseases is to be studied and illustrated.

8. There are also other diseases of other years, which we may call, if we choose, epidemics. They are, however, irregular, and anomalous to a great degree; referable to no certain type,

[1] "The *non-naturals* are six in number, viz., air, meat and drink, motion and rest, sleep and wakefulness, mental emotions, and, lastly, the *secreta* and *retenta*. They are called *non-natural* because any excess in respect to them occasions disorder."—[Greenhill, from Blancard's Lex. Med.]

and truly ill-conditioned, both on account of the uncertain variety of their symptoms, and their certain inconsistency, as well as from the processes by which they clear themselves off, and work themselves out. This excessive inconsistency arises from the fact of each constitution engendering diseases that depart from the character of those of the same sort that have occurred at another time; a fact that holds good with fever, and holds good with the generality of epidemics.

9. Nor is this the whole of the story. I have a nicer doctrine to exhibit—a specimen as it were, of Nature playing tricks. One and the same disease shall, in a year of one and the same constitution, exhibit itself with various and dissimilar aspects, as to its origin, its formation, its decline. And of such importance shall these differences be, that our indications of treatment must be adopted or laid aside according to the disposition of the disease.

10. Furthermore, we must remark that all epidemics are referable to one of two classes. They are either *vernal* or *autumnal*. Even when they originate during some other period of the year, they must be referred to one of these divisions, spring or autumn, whichever they are nearest to, just as the case may be. For it happens occasionally that the atmospheric influences may so coincide with an epidemic, as to forward its development, and to precipitate it, as it were, prematurely upon its victims. On the other hand, there is, at times, so little correspondence, that its proper time passes by before it lays hold of the patients that are predisposed for it. Hence, in using the words *spring* and *autumn*, I am not speaking absolutely and by the card: so that I do not mean the precise times of their respective equinoxes.

11. Of the epidemics that show themselves in the *spring*, there are some that set in quite early. They begin as soon as January; they increase gradually; they reach their height about the twenty-fourth of March; they then gradually decline, so that, with the exception of a few that may attack isolated individuals, they disappear by Midsummer. To this last belong the measles. So do the spring-tertians. These last, although they may set in as late, perhaps, as February, nevertheless, decline and disappear just as Midsummer approaches.

Others begin in the spring, increase daily, and reach their

climax about the autumnal equinox. When this is over, they gradually decline, and as the cold weather sets in, they turn their back upon the winter. Of this sort are the smallpox and plague; in those years at least where either has the ascendency over other diseases.

12. Cholera morbus belongs to the autumnal group. It begins in August, and within the limited barriers of one single month runs its course. Other epidemics, however, although they take their birth in the same season, run into the winter; for instance, dysentery, quartan agues, and autumnal tertians. Each of these, however much it may make a prolonged attack against those upon whom it fastens, will still, for the most part, within a couple of months, have lost both the name and features of an epidemic.

13. Now in regard to the special class of fevers, it must be observed that the majority of those which are continued, have, up to the present time, had no name founded upon the character of the general constitution. Such names as they are known by are taken from marked changes impressed upon the blood, or else from some other palpable symptom. On this principle they are called *putrid, petechial, malignant,* &c. Considering, however, that almost every constitution, over and above the fevers that it engenders, has also a tendency to propagate, along with it, some second disease from the class of proper and the typical epidemics, such as plague, smallpox, dysentery &c., I see, for my own part, no reason why fevers of the kind in question should not take their names from the character of the constitution prevalent at the time of their appearance (that being determined by the particular disease which they usher in) rather than from any alteration of the blood, or from any particular symptom; points which may hold good in the cases of fever of very different characters.

14. *Intermittents* take their name from the interval that lies between the paroxysms. This character is sufficient to distinguish them, providing always that we bear also in mind the seasons of the year when they occur, viz. the spring and fall. No objection lies to this nomenclature from the circumstance of some of them occasionally partaking of the true *intermittent* character, without the accompaniment of any

palpable symptom. Yet this is the case when the autumnal intermittents set in, and wax rife prematurely; for instance, in the month of July, when they do not at once put on the *intermittent* type (which is particularly the case with the spring ones), and when they so closely simulate the character of continued fever, that, without the nicest examination and comparison, you cannot discriminate between the one and the other. By degrees, however, as the ascendancy of the particular constitution declines, and as its influence becomes restrained, they change towards the usual type; so that, by the end of autumn, they lay aside (so to say) their mask, and appear openly as what they really were from the first, viz. *intermittents*, tertian or quartan, as the case may be. These are points, which if we, as physicians, overlook, we shall blunder, to the great prejudice of our patients; in treating as true continued fevers, fevers like those in question, which are not continued but intermittent.

15. Moreover—and to this we must carefully attend—when several of these fevers infest the same year, one has an ascendency over the others; they being, as it were, reduced to its supremacy, and raging all the more moderately. When the paramount complaint increases, these decrease; when it loses ground, they make way. Thus they vex humanity in complement, as the character of the year and the sensible temperament of the atmosphere favour either the one or the other. That disease, however, which at the autumnal equinox rages worst, and devastates most fearfully, determines the name for the constitution of the whole year; and whatsoever the ailment may be which at that period takes the lead of the rest, it is the one which will easily be found to have done so for the whole year, to have swayed, as it were, the others, and to have accommodated to its own character (as much as their respective natures would allow) the whole of its contemporary epidemics.

16. To illustrate this we may state, that when smallpox is most prevalent, such fevers as occur, sporadically, during the whole year, partake of the variolous inflammation. Each disease originates in the same manner. Between the most characteristic symptoms of each there is a close affinity—excepting only the eruption of smallpox, and the accessories that

depend upon it. There is abundant proof of this in the excessive tendency to spontaneous diaphoresis, and to salivation, common to the two diseases.

Similarly—when dysenteries are prevalent, the fever that sets in during the year closely resembles them. The attacks of the two diseases are similar. In either case the patients are exceedingly liable to aphthæ and similar symptoms. Such is the proof. The dysentery, however, eliminates its morbid matter by means of stools; and from this there arise a few peculiar symptoms. Nay, the dysentery which we are speaking of is neither more nor less than a fever, with this difference only, viz. that it determines itself towards the viscera, unloads itself by the intestines, and through them makes its escape outwards.

17. It must, however, be remarked, that such leading epidemics as at the autumnal equinox devastate all things like torrents which have broken their banks, at the approach of the colds of winter retire within their channels. Whilst, on the other hand, the secondary maladies, that serve like soldiers under them, take that very time for their development; and then they wax strong, and they take their lead until the paramount epidemic of the next year weakens their vigour, and abolishes their name.

18. Finally, I must remark, that where any particular constitution engenders any species of epidemic, that this species is generically different from the species of any other constitution, however much one name may be current for all; whilst all the peculiar species which set in under one and the same constitution, agree with each other in being referable to one common and general producing cause; this being the peculiar atmospheric diathesis. Consequently, however much they may differ from each other in their form and specific type, the common constitution forms and modifies their respective subject-matter into a common *status* and condition. Hence, the chief symptoms, so far as they have nothing to do with the particular form of the evacuation, are alike in all. They all, too, agree in this—they increase and remit in their severity at similar periods. Furthermore, in those years wherein different species set in at the same time, they all agree, both in the manner of their first attack, and the symptoms of their accession.

19. It is from these things that we may learn the nice and varied method which Nature recognises in the development of diseases; a point which I think no man has hitherto studied with the accuracy that its importance demands. Still, from the little that *has* been done—seeing that the specific differences between our common diseases, viz. fevers, are based upon some unknown constitution of the atmosphere—enough is shown to prove that those labour in vain who refer the origin of fevers to some morbid cause accumulated in the human frame. It is clear as the sun at noon that a man might be as strong as a wrestler, but that if he went to certain parts of the country where fever was raging, he would sicken within a day or two. Yet it is hardly credible that any appreciable change could be impressed by the air upon the humour of the man in question in a time so short.

20. It is just as difficult, too, to lay down any general rules for treating these fevers; rules

"Quos ultra citrâque nequit consistere rectum."

Hence, in darkness so dense, I prefer nothing, upon the breaking out of a new fever, to a little delay; and I proceed, especially towards the greater remedies, with a slow foot, and with circumspection. In the mean time I diligently observe the course and character of the disease, and look out for those kinds of treatment that do good or harm. The latter I make haste to abandon, the former to adopt.

21. I may state at once, that to reduce into classes all the species of epidemics, to arrange them according to their phenomena, to work out their several idiopathic characteristics, to determine in detail the proper method of treatment for each of them, is a work so difficult, an arrangement requiring so much leisure and opportunity, a cycle so little coincident with any recognised sequence of years, that the lifetime of no single physician would suffice for the collection of a sufficiency of data. Great, however, as such an undertaking may be, it must be got through, before we can venture to state that in so complex a series of diseases we have done any good work worthy of mention.

22. How, however, are we to describe those distinct species of epidemic disease that not only (as far, at least, as we can

judge) occur accidentally, but which also shall, at one time, keep the same for a year or for a series of years, and at another assume specific differences within a single twelvemonth? To my mind there is no better plan than the following, viz.: to take the range of a sufficient number of years, and to describe the diseases in the order of their sequence and succession. To do this upon my own principles, I shall now lay before the learned world the history and the treatment of the epidemics of fifteen years, or of those which raged between the years 1661 and 1676. These I have founded upon the most accurate observations that I have had an opportunity of making; but it is more than I could do if I referred their origin to causes dependent upon any perceptible quality of the atmosphere; and still more so, if I derived them from any particular dyscracy of the blood, and humours—except, indeed, so far as this last might originate in any occult atmospheric influences. Still more impossible (if I may use so strong an expression) would it be for me to describe specific forms of epidemics as arising out of specific changes of the atmosphere; easy as such a proceeding may appear to those who can theorise about fevers, and christen the disease accordingly—speculating laxly upon those alterations which can take place in our blood and humours through the degeneration of this or that principle. Upon principles like these, where we lose sight of our best guide, Nature, and give ourselves up to the luxury of guesswork, we may have as many species of ailments as we choose to devise. We must claim, however, in doing so, a license which no one would allow to a botanist, from whom, in his descriptions and histories, we require the evidence and confirmation of our senses. The speculations of reason, in and of themselves of paramount greatness and transcendency, is what we do *not* require.

23. I am far from taking upon myself the credit of exhausting my subject in the present observations. It is highly probable that I may fail even in the full enumeration of the epidemics. Still less do I warrant that the diseases which, during the years in question, have succeeded each other in the sequence about to be exhibited, shall remain the same in all future years. One thing most especially do I aim at. It is my wish to state how things have gone lately; how they have been in this country, and how they have been in this the city

which we live in. The observations of some years form my groundwork. It is thus that I would add my mite, such as it is, towards the foundation of a work that, in my humble judgment, shall be beneficial to the human race. Posterity will complete it; since to them it shall be given to take the full view of the whole cycle of epidemics in their mutual sequences for years yet to come.

CHAPTER III.

THE EPIDEMIC CONSTITUTION OF THE YEARS 1661, 1662, 1663, 1664, IN LONDON.

1. In the year 1661 the autumnal intermittents, which, during the last few years, had been gaining ground, broke out afresh, about the beginning of July. They gathered strength daily: by the month of August they were doing fearful mischief. In many places the mortality was excessive, and whole families fell victims. The form was an ill-conditioned tertian. Soon after they gradually decreased. Few were attacked during October. The colds of winter wholly dispelled them. The symptoms that accompanied the present tertian differed from those of the tertian intermittents of other years, chiefly in the following particulars. The paroxysm was severer; the tongue of the patient blacker and dryer; the apyrectic intervals were less defined; the prostration of strength was greater; the appetite was more affected; the fits had a greater tendency to repeat themselves. In one word, the symptoms were more formidable, and the disease in general was deadly, beyond the degree of an intermittent. If it attacked old men, or cachectic subjects, or patients who had been weakened by bleeding or other evacuations, it was not got rid of within two or three months.

2. A few instances of the quartan intermittent accompanied the fever which we have described. Neither form, however, stood their ground against the approach of winter; and no one, during that season, who had not previously been a sufferer was attacked by them. There then followed a continued fever; which differed in its character from these autumnal

intermittents only in being permanent rather than periodic. Each disease made its attack in the same way. Patients suffered alike under each; retching, with parched skins, thirsting mouths, and blackened tongues. In either case, also, towards the close of the disease, it was by sweatings that the morbific matter was most readily expelled.

3. It is clear, from the forthcoming fact, that this fever belongs to the class of the autumnal intermittents. It very rarely showed itself in the beginning of the year. Now, in my eyes, this continued fever was a sort of miniature of the intermittent; whilst each particular paroxysm of the intermittent was a miniature of the continued fever; and the main difference lay only in the following circumstance. The continued fevers set up an effervescence, and kept it uninterruptedly, and at the same rate. The intermittents did the same; but *they* got through their work at intervals and by instalments.

4. How long a continued fever of this character had prevailed in the year 1661 I am unable to state. Up to that time I had found enough to do in observing the general symptoms of fever. I had not become aware that they were distinguished from one another according to the different *crases* of different years, or according to the seasons of one and the same year. This, however, I *do* know, namely, that up to 1665 A.D., the character of the continued fever was one and the same; and that the autumnal intermittents which, up to that year, had been frequent, from that time forwards were of exceeding rarity.

5. To return, however, to the subject: the tertian fever which, during the last-named year, had spread its ravages far and wide, as soon as it was over, confined itself within narrower bounds; whilst, for the autumn that came after, under a similar atmospheric constitution, it was quartans that took the lead amongst the epidemics. When autumn is over the quartans invariably diminish; and continued fever, which, during the sway of the quartans, sparingly mixes itself up with them, rages violently until spring, at which season the vernal intermittent succeed. By the first of May these latter have abated; and smallpox shows itself here and there. These continue till the autumnal epidemics (quartan or continued) show their faces. Upon these they turn tail, and leave them a clear

field. In this order did the epidemic diseases pervade the constitution that I have spoken of; and thus did they succeed each other. Upon each of these I mean to write in detail; and most particularly upon the continued fever and the intermittents, vernal or autumnal, as the case may be, by which so bad a stamp was given to the constitution of these years.

6. I shall take, as a starting-point, continued fever; I look upon this as the leader of the band. In this, more than in any of the others, does Nature, with the greatest uniformity, and most in accordance with a set law, both bring the febrile matter towards its due concoction, and expel and eliminate it, so concocted, within a fixed and definite period.

I must add that, inasmuch as those annual constitutions which develop the autumnal intermittents recur, upon an average of years, much oftener than those which promote any other form of epidemic, it follows of necessity that the continued fever, which goes along with them, must also be more frequent.

7. Besides the symptoms that accompany other fevers, the present one was aggravated by the following: the patient was all but dead; he retched; his tongue was parched and black; there was violent and sudden prostration of strength; the surface was dry; the urine was sometimes thick, sometimes thin, either character being equally an indication of crudity. As the disease declined, diarrhœa (unless checked at the beginning by the physician) set in. This added obstinacy to the disease, and protracted its evils. Still, if left to itself, and on its own bottom, it was rarely prolonged beyond either the fourteenth or the twenty-first day; after which, through the medium of a sweat, or rather that of a gentle perspiration, it was resolved. Within this period the urine showed no signs of concoction. When it was over it generally did so forthwith.

8. Other symptoms were superadded when the disease was unskilfully treated. These, however, as well as the whole character of the complaint, will best be illustrated by an exhibition of the particular principles that I applied, some time back, to this fever. The points that particularly bear upon the present question I shall transfer to the present publication from one that was printed some time ago; at which time I had no notion that any second form of fever was to be found in *rerum natura*.

CHAPTER IV.

THE CONTINUED FEVER OF THE YEARS 1661, 1662, 1663, 1664.

1. I begin with observing, that the inordinate commotion of the volume of the blood, whether cause or concomitant of this fever, is excited by Nature in order that either some heterogeneous matter, incorporated with our humours, and inimical to them, may be eliminated, or else that the blood itself may be transmuted towards a better diathesis.

2. With this view, I prefer the broad and general term *commotion*, to either *fermentation* or *ebullition*. I so cut off the occasion of a mere dispute about words, against which the use of the other two terms, although admitting a fair explanation, would not sufficiently ensure me. To some they might appear harsh, to others inappropriate. However much a febrile commotion of the blood may resemble either the *fermentation* or the *ebullition* of vegetable juices, there are many who consider that it differs widely, and in many respects, from either the one or the other.

In respect to the term *fermentation*, we will mention one or two of their instances—

Although fluids, when they begin to ferment, acquire a vinous character, so that ardent spirit may be elicited from them by distillation, and although they easily degenerate into vinegar, which, in itself, is remarkably acid, and yields to distillation an acid spirit, neither of these changes have hitherto been observed in the blood.

Although in vinous liquors the fermentation and the depuration go hand in hand, and keep pace with each other, the depuration of the blood in fever does by no means go along with its æstuation; but, on the contrary, follows it. Of this we may have ocular demonstration in the clear cases of febrile paroxysms carried off by sweatings.

3. In respect to the term *ebullition*, they object still more to the analogy. They argue, that experience makes against it, and that in many cases the erethism of humours is far from being

so uncontrolled as to deserve the name of *ebullition*. I have no desire to mix myself up with such controversies as these. Be the matter as it may, I shall, now and then, use the words *fermentation* and *ebullition*, inasmuch as they have been currently adopted by medical men of late years; provided only, that, from what has been said upon the subject, it is now clear to the reader, that the terms are used in the present treatise, solely for the sake of illustration.

That this febrile commotion of the blood is excited by Nature in order to separate from the humours some heterogeneous matter, antagonistic to herself, is a view supported by the evidence of the whole family of eruptive fevers. In these the benefit derived from the ebullition of the blood is the elimination by means of the skin of some excrementitious matter lurking in the blood, and endued with deleterious qualities.

4. In my mind also it is equally clear, that the febrile commotion of the blood has often (I may say *very* often) no other aim and end than that of changing itself into some other state and diathesis, and that a man of even pure and untainted blood may be stricken with fever. This has, by frequent observation, been shown to be the case with many healthy constitutions; constitutions wherein we search in vain for the means and the appliances of disease, wherein there is nothing plethoric, nothing cachectic; finally, where no unhealthy atmospheric anomalies have paved the way to fever. Nevertheless men thus healthy have, at sundry times and divers places, after some important alteration in the way of air, food, or any of the other (so-called) *non-naturals*,[1] been seized by fever; and the reason thereof is this,—their blood has been making efforts to endue itself with a new state and condition, adapted to the new state and condition of its food or air. The irritation of vicious particles, nestling in the blood, and evolving fever, has nothing to do in the matter. Now I by no means deny that, after the commotion of a fever, and the despumation of the blood, the matter that is thus naturally excreted may be vicious, whilst the blood itself shall have been well-disposed, and of a laudable diathesis: but I am no more surprised at such being the case, than I am at some part of our food coming out stinking and corrupt, after

[1] See note; p. 34.

it has undergone notable changes within our body, and taken the character of excretions.

5. In the second place, I consider that the true and proper indications that present themselves in this disease, must deal with this same commotion of the blood. We must keep it within its limits, so that it coincide with the intentions of Nature. If, on the one hand, it rage too much, perilous symptoms will set in. If, on the other, it slacken into insufficiency, either the expulsion of the morbific matter will be hindered, or the efforts of the blood to reduce itself to a better state will be weakened. So that, whether it be the irritation of heterogeneous matter, or whether it be the *nisus* of the blood towards a new diathesis, to which the origin of fever is referred, the indications are the same. Upon these fundamental principles I institute the following system of therapeutics.

6. Whenever I have to deal with a patient whose blood is in itself of a weak character (as it is for the most part with children), or else deficient in animal spirits (as it is with men in the decline of life, and youths that have long been invalids), I keep my fingers from the lancet. If I order venesection, the blood, weak enough even without being diminished, would be rendered incompetent to the work of despumation. Thence would arise the degeneration of its whole volume, whilst the death of the patient would probably come next. It is just so when you interfere with fermentation of beer or any other liquor. It gets spoiled. Now, when Nature has once taken in hand the expulsion of certain particles, which can keep themselves pure as long as they are equably mixed up with the remainder of the circulating fluids, but which, when separate, take on ill-conditioned forms of putridity, along with dispositions to taint with the worst sort of corruption the remainder of the humours, she cannot abide their contact. In stating this, I am aware that there are patients upon whom rash bloodlettings have been inflicted; that, by the help of proper cordials, have over-lived the treatment, and that their blood has been restored to a condition competent to the necessary defecation. I know all this, and I can only say, that *prevention is better than cure.*

7. Whenever, on the other hand, the state of the blood is of a different description (such as I find it amongst youths of

an athletic habit and a sanguine temperament), venesection is my leading remedy. Except in certain cases which will be stated in the sequel, it cannot with safety be omitted. Neglect it, and you run the risk of frenzies, pleurisies, and such like inflammations, which originate in the preternatural ebullition of the blood. More than this—from the excess of the blood, the circulation is impeded: you smother it.

8. As to the quantity, it is my practice to take away just so much blood as I consider will relieve the patient of the distress, to which this violent commotion makes him liable. The subsequent æstuation I regulate and restrict by venesection, hot cordials, and attention to the bowels. These I repeat or omit, I exhibit or withhold, encourage or check respectively, just as I perceive that the commotion increases or subsides.

9. After the bleeding, presuming such to have been necessary, I anxiously and carefully inquire whether the patient at the onset of the fever has been distressed by either vomiting or ineffectual efforts to vomit. If he have, I prescribe an emetic at once, unless, indeed, extreme youth or evident debility counter-indicate. Very necessary is an emetic, where there has been this previous tendency to vomit; since, unless the offending matter be cleared away, it will serve as a sink for all sorts of mischief. These will embarrass the physician during the whole of his attendance, and add greatly to the dangers of the patient. Of these, the most important as well as the most usual, is diarrhœa. It comes on during the defervescence of the fever, as often as emetics have been indicated and omitted. How should it be otherwise? As Nature partially corrects the malignant humours in the stomach, she passes them on to the intestines, and these become corroded by the continuous flow of acrid humours which the belly serves as source to. Diarrhœa *must* follow. Nevertheless, I have observed that in the *inflammatory* fever, which goes by the common name of malignant, the omission of an emetic, even when nausea has preceded, does not, as in the present disease, necessarily ensure a diarrhœa. Of this, however, more hereafter.

10. Now the danger of the diarrhœa lies in this. The patient, weakened by the disease, grows weaker still. Moreover (and this is pre-eminently a cause of mischief), as the disease is declining, the blood should be drawing itself up, and

it should be getting ready with its full strength to carry on the work of despumation. Now, by this evacuation, it is disabled altogether.

11. There is not even the shadow of a doubt but that a peccant humour lodges on the stomach, unless expelled by a vomit; that it may be latent for a time, but that afterwards it will give rise to this tragedy (for so I call it) of a diarrhœa. You will find, if you inquire, in almost all cases when fever and diarrhœa have gone together, that at the beginning of the disease the patient was inclined to vomit, and that the physician withheld an emetic. Again, you will discover that even when the tendency to vomit shall have long ago gone over, the diarrhœa will generally stop if an emetic be administered, provided always that the strength of the patient will bear one. With respect to astringents, I have often noticed, that when once diarrhœa has set in, they have little control over it, whether taken inwardly, or applied externally.

12. The emetic which I generally prescribe is as follows:

Antimonial infusion, ʒvj;
Oxymel of squills,
Compound syrup of scabious, ää ʒss.
Mix, and make into an emetic.

I advise it to be taken in the afternoon, two hours after a light dinner. In order that the retching may be less, I recommend that six or eight pints of posset be kept in readiness. Emetics are dangerous unless diluted. As often as the patient either vomits or goes to stool, he takes a draught immediately. So doing, he escapes ineffectual *tormina*, and the efforts to vomit go on well.

13. I have often wondered, after eyeing curiously (as I frequently have done) the matters brought up by the emetic, and finding them neither remarkable for their quantity, nor notably bad in their quality, that patients have been so much, and so suddenly relieved; inasmuch as when the vomit has been over, the severer symptoms, that both distress the patient, and terrify his friends, the retching, the anxiety, the tossing, the heavy sighs, the blackness of the tongue, are mitigated and relieved; the remainder of disease being such as a stout heart may bear up against.

14. It must not be omitted, that if the condition of the

patient require the double remedy of venesection and vomits; the exhibition of the emetic should precede the opening of the vein, otherwise the veins become distended with blood, and there is imminent danger lest the violent strainings to vomit break either a blood-vessel in the lungs, or do an injury to the brain, since the blood pours both in and out with violence, and the patient may be taken off by a fit of apoplexy. I could relate more than one example of this. I prefer, however, to put better statements in their place, and to content myself with the hint that in matters of this sort our caution must be exceeding.

15. Now if any one ask, during what stage of the fever I would order the emetic to be exhibited, my answer is, that, whenever I have the choice, I order it at the very beginning. By so doing, we can ensure the patient against all those formidable symptoms which originate in the mass of impurities that lie lodged within the stomach, and in the parts around it. Moreover, it is just possible that we may quash the disease at its onset, whereas it would, otherwise, wax mighty, last long, and jeopardise the patient. For it thrives upon the humours that we have spoken of, and these either transmit themselves in substance to the innermost recesses of the frame, and commingle with the volume of the blood, or else they stand still and grow from bad to worse, get tainted with a venomous depravity, and finally, from their respective *foci*, impress an infectious influence upon the continuous streams of blood that flow by them. Of this, to go no further, the cholera morbus gives an instance. Very frequently, either by the aid of laudanum or some astringent, the attempt is made to restrain the vomiting that accompanies. Such skill is mischievous; stop the vomiting, and you replace it with a worse series of symptoms. All those acrid and corrupt humours which should have been left alone to be got rid of, and for which a full evacuation should have been procured, are thus driven inwards. Here they extend their pernicious influence to the blood, and light up fevers of a malignant disposition, and with grave symptoms. It is then as much as we can do to cure them by means of an emetic. This, however, we must give, whether the patient, at the time in question, be inclined to vomit or not.

16. If, however, as is often the case, we are sent for too late,

so that we cannot take advantage of the first stage of the fever for the administration of an emetic, I still consider that at any stage whatsoever, provided only that the malady has not too much prostrated the strength of the patient, and disabled him from bearing one, an emetic should be given. I have, for my own part, prescribed one on the twelfth day of the disease, and that without hesitation, and with benefit. By such an emetic I have swept away the diarrhœa, which was impeding the blood in its proper business of despumation. I have prescribed one even later than the twelfth day, and have hesitated only where the prostration of strength has been excessive.

17. In the evening, when the vomiting is over, I invariably endeavour to allay the tumult that it has raised amongst the humours, and to solicit sleep. To this end, late in the evening, or at bedtime, I order an anodyne draught, e. g.:

Red poppy water, ℥ij;
Aqua mirabilis, 3ij;
Syrup of white poppy,
Syrup of red poppy, āā ℥ss.

18. If, however, through the free loss of blood that the patient has sustained during the course of the disease, from the frequent vomiting or purging induced by the action of the emetic, from the general character of the apyretic symptoms, from his individual weakness, or, finally, from the date of the fever, now upon its decline, there be no longer any risk of exciting any excessive ebullition, I have no hesitation in substituting, for the anodyne above mentioned, a full dose of diascordium, either by itself, or conjoined with a cordial. There is no better medicine than this, if you only suit the dose to the symptoms rather than to the formularies.

19. Here, however, previous to concluding my observations upon emetics, I must remark that (in the present fever at least) antimonial emetics are not fit for children, or for youths under fourteen, even in the smallest doses. I wish, with all my heart, that instead of them something more safe, and equally efficacious, could be discovered; something that would thoroughly expel those vicious humours, which, in the decline of fever, induce diarrhœa. At least, I wish that, by means of

some suitable medicine, we could so far alter and transform the corrosive character of this acrid matter as to stop it from being the cause of these loosenesses. It has often happened, to my great annoyance, that when called in to infants and children suffering under the fever in question, I have observed indications which have called for the exhibition of medicines which I have not ventured to prescribe. If I *could* have applied them, the patient would have been out of danger; if I *had* applied them, I should have trembled for the event. In adults, however, I have observed no such danger, as long as the emetic has been administered with the cautions above stated.

20. The business of vomiting being got through, I proceed to consider whether, notwithstanding the foregoing evacuations, the blood may not still be in such a state of æstuation as to require further limitations to its effervescence, and further checks; or whether it may not so far have grown slack as to need a fillip; finally, whether the fermentation be brought to a fit and proper pitch, so that the patient can safely be left to himself. Upon each of these points I have something to say.

21. If the blood so exæstuate that we may fairly suspect that the patient is liable to a frenzy, or to any other troublesome symptom proceeding from excessive ebullition, I prescribe, the day after the emetic, an enema of the following formula, and recommend it to be repeated as occasion may require:

Common decoction for clysters,
Syrup of violets,
Brown sugar, āā ℥ij.

It often happens that this ventilates and cools the blood, controlling its effervescence. At times, too, it happens that venesection must be repeated several times. Such is the case in very sanguine temperaments, with men in the prime of life, and with those high livers, who, by the free use of wine, have impressed upon their blood an inflammatory diathesis. Generally, however, there is no occasion for so heroic a remedy, —for such, truly, is the repetition of venesections. Besides this, with the few above-named exceptions, we can sufficiently control the effervescence by the administration of enemata. Wherefore, if the blood still continue to boil and effervesce more than it ought to do, I order the injection of an enema,

either every day or every other day, as the case requires. And this I continue to the tenth day of the disease, there or thereabouts.

22. However, if a vast deal of blood have been lost, or if the patient be advanced in years, I order no enemata, even though the blood may go on boiling. In such cases there is no fear that by omitting clysters we shall allow the ebullition to proceed to dangerous lengths. On the contrary, nothing is more certain that the use of them relaxes the strength, the fulness, and (if I may use an equivocal expression) the *tone* of the blood; so much so, that with old men, with whom enemata never succeed so well as with the young, the work of nature is disturbed and interrupted. Now, if a vein has been opened, and not much blood been taken, clysters may be ordered; and that up to the tenth day, more or less. Sometimes they may be continued to the twelfth, a practice which holds good in those cases where we are afraid of bloodletting.

There are those, who, after the autumnal intermittents (whether tertian or quartan), are seized with continued fever; and this because, at the fag end of the disease that went before, they were not purged as they should have been. Now, if you bleed these, there is the danger of the residue and sediment, the deposit (as it were) of the previous fermentation being again taken up into the volume of the blood, and engendering fresh commotions. Instead, therefore, of bloodletting, I use, in cases like these, enemata; and I keep them on to the twelfth day, whenever the patient be young, and fermentation run high.

23. On the other hand, whether you have or have not had recourse to venesection, provided that the effervescence of the blood be below par, and that it require a stimulus to enable it to second the efforts of nature, you must abstain from clysters. You must abstain from them during even the first ten days, and *a fortiori* you must abstain from them afterwards. For why should we endeavour to control any further, and to repress the fermentation? It already has grown faint, and is exhausted. After the twelfth day, and during the decline of the disease, to use clysters is irrational and absurd. It is just like making a huge over-sized vent for beer whilst it is fermenting. Such is a clog upon Nature; and it prevents her

from acting with her full energies, and with her united force against the morbific matter.

24. As soon as, from the effect of well-timed and suitable evacuations, the patient is out of harm's way, and as soon as he has nothing more to fear from the symptoms that arise out of excessive ebullition, in other words, when the disease is on its decline, I consider him out of danger just in proportion as I can keep his bowels in proper order; for, under such conditions, the fever most mildly and benignly proceeds towards its concoction. Wherefore, if the preceding evacuations have engendered any laxity of blood, or if they seem likely to do so, or if the patient get quit of the fever before its time, or, finally, if the fever have run its full length, I not only discard enemata, but I have recourse to the help of cordials; and I gird up my loins for dealing with the looseness of the bowels.

25. In regard to cordials, I am cautious in their exhibition, since I have found out by experience that no little mischief comes from exhibiting them too soon, e. g., before the opening of a vein; since, in such a case, the crude matter may fall upon the brain, the pleura, or elsewhere. Hence I never administer them when little or no blood has been previously taken, when, combined with this, no notable evacuation has taken place, and, lastly, when the patient has not passed the prime of life; for I see no reason why such blood as is already richer than it ought to be, should be further and perniciously over fed. It has all the fulness and the fire which it requires, and it wants nothing new to light it up as long as its natural heat is unimpaired by the effect of violent evacuations. Patients of this sort have cordials at their own doors, and whatever they introduce from without is either superfluous or prejudicial. For this reason I allow nothing of the sort, or if I do, I admit it under the mildest forms.

26. Meanwhile, if the patient have grown weak, and if he be pulled down by the profuseness of the evacuations, or if he be advanced in years, I make a point of prescribing cordials, even at the commencement of the malady; and on the twelfth day, when the process of elimination is setting in, I indulge him liberally in the warmer drinks. I do so even earlier, guarding against the sudden retrocession of the febrile matter

towards the principal parts. At this stage, the more I heat the more I accelerate concoction.

27. I cannot bring my brain to comprehend the meaning of those physicians that are continually talking about the administration of remedies that promote the concoction of the febrile matter,—points which they insist upon when called in at the beginning of the disease. At the same time, they have no hesitation in recommending medicines that are intended to control the fever. Why! the fever itself is Nature's instrument. By this she separates the pure parts from the tainted ones. At the beginning, or even at the height of diseases, she does her work imperceptibly; during, however, their declines, she shows us at once, clearly and palpably, what she is about. This we may see by looking at the urine. The concoction of the matter of fever simply means the separation of the sound from the unsound. To accelerate this we are not to meddle with attemperants, and I know not what; but we are to let the effervescence go on as long as the condition of the patient can bear with it; we are to watch for its crisis and declension; and when we discover that separation is taking place, we are to back it up with warm remedies, and to bring it to a sure and speedy termination. This is the true way of promoting febrile concoction. Your evacuants and refrigerants are but hinderances; they procrastinate recoveries; and, when health is coming of its own accord, they frighten it away. This I have seen often. If the fermentation proceed properly, the despumation will be completed by the fourteenth day, but if you attempt to control it by the exhibition of refrigerants you must not wonder if it go on to the twentieth. In worn-out constitutions, where the treatment has been unskilful, it is further protracted.

28. It is worthy of observation that occasionally the patient, at the decline of the disease, and after the ill-timed administration of clysters, and other cathartics, may appear to have been slightly benefited; nay, at times there is a perfect cessation of the fever. Wait, however, for a day or two. It will then be seen, *not* that the original fever has taken strength, but that a fresh one is lit up. Chills and shivers will set in suddenly. Heats will follow. The fever itself (unless, per-

chance, it proves to be an intermittent), will run through the stages of the former one. When such is the case, treat the patient as if he had not been ill before; go over the ground a second time. The despumation that this ebullition is driving at will not be completed within its due complement of days, viz. fourteen, much as it may be distressing to the patient, who is sufficiently weakened by what has gone before, to wait so long for his recovery.

29. The cordials which I am in the habit of using are those that I will give a short notice of by and by. I prescribe the gentlest at the commencement of a disease, that is, when the ferment is most active. I proceed gradually to the stronger ones, according to the progress of the malady and the character of the ebullition; always remembering that when the blood has been drawn, or the patient is old, I can increase their strength. Not so when the subject is young, and the lancet has never been employed.

30. The cordials I call *moderate* are made out of the distilled waters, e. g., borage, lemon, strawberry, treacle, the *aqua scordii comp.*, &c., combined with the syrup of balm of Fernelius, the syrup of cloves, the syrup of lemon-juice, &c.

The cordials I call *strong* are made from Gascoigne's powder, bezoar, confection of hyacinth, Venice treacle, and the like.

The following formulæ are in frequent use:

℞ Borage-water,
Citron-water,
Aqua scordii comp.,
Black-cherry-water, āā ℥ij;
Cinnamon-water with barley, ℥j;
Prepared pearls, 3ij;
Loaf sugar, q. s.

Mix, and take iv spoonfuls several times a day, especially during the faintnesses.

℞ Water of the whole citron,
Strawberry-water, āā ℥iij;
Saxony-water, ℥j;
Treacle-water,
Syrup of balm of Fernelius,
Syrup of cloves,
Syrup of lemon-juice, āā ℥ss.

Mix, and make into a julep; to be taken frequently.

℞ Gascoigne's powder,
Bezoar of the East,
Bezoar of the West,
Contrayerva, ää ℈j;
One gold leaf.

Mix, and make into a very fine powder; of which take twelve grains, as often as is necessary, out of

Syrup of lemon-juice,
Syrup of cloves, ää ʒij.

Drink after it a few spoonfuls of the above-mentioned julep.

℞ Treacle-water, ʒiv;
Lemon seeds, ʒij.

Crush, and make into an emulsion. Strain and add sufficient pearled sugar to flavour it. Two spoonfuls a day.

I consider it superfluous to go through a longer list of formulæ. They either are or can be made innumerable; and they should be varied during the course of the illness according to its different stages, and its varied symptoms.

31. But if the fermentation be neither too active nor too languid, I leave it to itself, and I use no remedies, unless prevailed upon, against my will, by the importunity of either the sick man or the friends about him, to order something that may please the patient without interfering with the scope and method of my treatment.

32. And here I may mention that several times when I have been called in to persons in indifferent circumstances, whose purses would ill bear to be drawn upon for a long charge of physic, I have done nothing after the bleeding and the emetic (in such cases as they were required), beyond enjoining them to keep their beds closely during the whole of the disease, and to drink oatmeal-gruel, barley-broth, or something of that sort. To quench their thirst, they were allowed a little small beer with the chill off. They were to inject, every, or every other day, an enema of milk and sugar; they were to continue this until the tenth or eleventh day; and towards the termination of the fever, when the separation began to set in, they were permitted to take some strong drink, in the way of a cordial, in order to forward the elimination. In this manner, without any further complication of practice, beyond the mere addition of a purge towards the conclusion of the complaint, I sent them out of hand safe and sound.

33. To return, however, to the business. If the preceding

regimen has been accurately attended to, I generally discover about the fifteenth day that the time has come when a purgative draught may be administered with advantage. I judge of this both from the signs in the urine of a laudable separation, and from the palpable remission of the other symptoms. This purge draws off the miscellaneous sediment of the preceding fermentation. Miss the opportunity of this, and the chances are that they return to the blood, and produce a relapse; or else, by its prolonged lodgement in the parts that it belongs to, becomes a fruitful source of obstinate mischief in the frame; since, the separation being over, the impure humours flow back from the arteries to the veins, creating obstacles and ferments.

34. But here I must remark, that the administration of purgatives is less essential after the spring fevers than after the autumnal ones. The sediment that is left behind by the former yields to that of the latter both in quantity and quality. It is less earthy and malignant. The same is the case in smallpox, and many other of the diseases that make their incursions during the spring. In all these the omission of purgatives is, as far as my observation has extended itself, accompanied with less danger than it is in the cases above mentioned. A man would not be far from wrong who stated that, upon this single cause, viz. the omission of purgatives after autumnal diseases, a greater heap of disease was dependent than upon any other cause whatsoever.

35. If the patient be exceedingly weak, or if the depuration be incomplete, and I am afraid of purging on the fifteenth day, I put it off to the seventeenth. I then prescribe either the following draught or something like it, adapted to the strength of the subject:

> Tamarinds, ℥ss;
> Senna leaves, ʒij;
> Rhubarb, ʒss.
>
> Boil with a sufficient quantity of water; strain to three ounces; add of manna and the solutive syrup of roses, āā ℥j. Mix, and make a draught, to be taken in the morning.

36. When the purging is over, the patient, who up to the present has been kept to his bed by my order, is told to get up, and to return by degrees to his usual manner of living. The diet that he has hitherto been recommended is of the kind

which I have just alluded to—barley-broth, oatmeal-gruel, panadoes, made with the yelk of an egg, with bread, sugar, and water; then chicken-broth, and small beer well hopped. Herewith, at the times when the fever rages highest, we may mix up a little orange-juice, fresh squeezed, and held over the fire just long enough to take off its sharpness. Such and such like I allow. However, oatmeal-gruel is worth all of them put together. To deny small beer to be taken now and then, and in small quantities, is an unnecessary severity, and one which frequently does harm.[1]

37. It happens sometimes (chiefly with old men) that when the patient has got better, and the body has been purged or over-purged, he still continues very weak; and that he often throws up, either by coughing or hawking, a vast quantity of viscid and glutinous phlegm. This symptom not only frightens the patient, but also imposes on the physician. Unless he be very wary, he will be induced to imagine that the disease has paved the way for a consumption. Now I have noticed that there is not this amount of danger. In such a case I order the patient to drink some old Malaga wine, some Falernian, or some Muscatell, with a toast in it. This restores the *crasis* of the blood, which the violence of the previous ferment had impaired, and which is incompetent to the assimilation of the juices of the *ingesta*. Frequent experience tells me that such treatment dispels these symptoms within a few days.

38. By the method that I have laid down we may ensure the patient from a variety of symptoms and affections which are usually attributed to the so-called *malignity* of his complaint; since nothing is more usual than for ill-taught practitioners to shift the blame from their own misdoings to *malignity*. Thus, when they give medicines too cooling, and use enemata at the wrong time, and by so doing weaken the *crasis* of the blood;

[1] Here follow, in the editions of 1566 and 1569, the subjoined remarks upon the use of blisters [G.]: "In regard to blisters, which are so much in use, I neither see my way as to how they draw off the ichorous fluids from the muscular parts wherein they lodge, or how they can in anywise free the blood from the febrile matter that disturbs it; over and above which, they irritate the patient by the sore which they produce upon the skin, and add to the lowering effects of the disease. Although I have often used them, and have found that my patients have done well, I cannot refer any good to their action. I believe that they have as much to do with the recovery of those to whom they are applied, as the feather-bed itself. Luck has ennobled many a worthless medicine."

and when Nature is overdone by its work of depuration, and when the natural consequences of these artificial impediments occur, and when the patient faints, and when worse symptoms follow — it is the *malignity*, forsooth, that is in fault. Perhaps, however, the disease becomes protracted, and so escapes so harsh an appellation; whilst, nevertheless, there is something that obstructs the cure of it. This must then be *scorbutus*. Now, in sober truth, the symptoms during the activity of disease are no more the effects of *malignity* than those of its decline are of *scorbutus*. Both come of bad treatment, as I have abundantly observed. Not that either I or any one else who has ever even skimmed the history of Medicine, need be told that there are such things as fevers, truly malignant in their quality, as well as those that originate in a bad temperament, or from putrid heat. Proofs of this cannot be concealed where there is sickness. Neither do I deny that occasionally scorbutus, as well as other diseases, may complicate fever. I only say that these affections are often unjustly blamed.

39. If the fermentation of the blood has gone on properly, a thorough despumation of the morbific matter will have taken place within the above-mentioned period; but if clysters or refrigerants have been used too late, the disease will run on much longer, especially with old men who have been badly treated. I have been sent for to these after they had been labouring of the fever for as much as forty days, and I have tried everything that I could think of in order to promote the despumation of the blood. It has, however, partly from old age, partly from the use of enemata and refrigerants, been so attenuated, that neither cordials nor corroborants would help me. The fever either continued obstinate and undiminished, or else there seemed to be an apyrexy; the strength of the patient was prostrated, and he became all but dead.

40. Having had recourse to other remedies without success, I was compelled to turn my thoughts towards new quarters, and to apply to the patients the lively and vigorous warmth of young people. Let no one wonder at the strangeness of this method, when he hears that so much has the sick man been restored by it, and so much has debilitated nature been renovated, that it has unloaded itself of the remnants of the matter that it secretes and eliminates; since it is very credible that a

notable supply of fresh effluvia from a sound and athletic body may be transfused into a sick and exhausted one. I have never found that the repeated application of warm flannels has ever had the effect of the plan I have described. In this the warmth is of a kind congenial to the human frame, and it is, at the same time, bland, humid, equal, and permanent.

Now this principle of transfusing into the body of the patient effluvia and exhalations, which perhaps may be of a balsamic nature, although at first it may seem strange, has been applied, from the time that I first adopted it, by others as well as myself, and that with good results; and I am by no means ashamed of it, even although some few from amongst the arrogant, impertinent, and supercilious despisers of everything common may sneer at me by reason of it. I put the well-doing of my neighbour far above the vain opinions of the like of such men as these.

41. The method that I have thus far laid down will, if rigidly followed and properly adhered to, relieve the patient, if not from all, at least from the most distressing of the symptoms which are the concomitants of the sequelæ of the fever, which trouble the physician with doubt, and which often, during the progress of the disease, bring him to despair; which (worse than this) often kill the patient outright, and that when his disease seems anything rather than deadly.

Now since, either from the fault of the sick man who sends for a doctor at the wrong time, or from want of skill and caution on the part of the doctor that has been sent for, accidents of the kind in question are often observed to arise, I have no hesitation in treating briefly of the peculiar treatment of the same. I shall confine myself, however, to those symptoms which require, when they occur, a separate and peculiar line of treatment, but which could generally have been guarded against by attention to the rules and methods laid down.

42. I begin with the cases where, either from having taken heating remedies too soon and too indiscreetly, or from the natural tendencies of a hot constitution, the patient falls into a brain fever, or into what is next door to it. He gets no sleep, he utters frequent exclamations, he uses incoherent language, he looks and talks wildly, he gulps down his medicines and food with avidity and by snatches; finally, he has a

suppression of urine. In these cases I bleed more freely than I would otherwise, and I am readier with my clysters and refrigerants. In spring time I am particularly bold; at that time, independent of the above symptoms, the young and sanguine safely bear strong remedies.

43. By this treatment I endeavour to sustain the patient until the disease takes a certain duration, when it becomes an easy matter to remove at once both the malady and the symptoms. This is done by the exhibition of a narcotic in a full dose. However true it may be, that during the height of the fever narcotic medicines are of no avail, and that they miss their mark, it is no less true that, during its decline, their effects are most marked. They do no good before, for two reasons: firstly, they are insufficient, even when administered in the largest doses, to stop the fermentation when it has got its head, and is in its full career: secondly (and this is the more important circumstance) they stop the desired depuration, the effect of their exhibition being to do violence to the processes by which the morbid matter is separated. At the height of a fever it is mixed equally with the whole volume of the blood, and has not as yet shown any tendency towards isolation. Whether this theory be the right one, or whether something more abstruse must be substituted for it, I leave to the decision of those who have time, taste, and temper for the necessary speculations.

44. Meanwhile, after an honest and fair induction from many observations, I pronounce this as an undoubted truth, and as a thing most certain, viz., that during the increase and crisis of the fever, neither laudanum nor any other narcotic alleviates the symptoms that we have spoken of; on the contrary, it often does harm; but that during its decline, even moderate doses are beneficial. Once in my life I prescribed a narcotic as early as the twelfth day, and good came of the prescription. Never, however, do I give one earlier without mischief. Defer it till the fourteenth day, and proportionate benefits will result, since, by that time, the separation will be all the forwarder. This delay is not immediately fatal, however much the formidable nature of the symptoms may terrify the looker-on. I have frequently noticed that they both could and would bear a respite until narcotics could be had recourse to. Herein,

however, we must be especially careful against heightening the fermentation that has set in. This we may do by administering heating medicines and cordials. If so, the patient will die outright.

The narcotics which I am in the habit of using are either the London laudanum, to the amount of a grain and a half, or the following:

℞ Cowslip flowers, one handful.
Boil in a sufficient quantity of water of black cherries; strain to three ounces. Dissolve
Syrup of white poppies, ℥ss;
Lemon-juice, half a spoonful.
Mix.

Or

℞ Black cherry-water, ℥ss;
Aqua epidemica, ʒij;
Liquid laudanum, ♏xvj;
Syrup of cloves, ʒj.
Mix.

45. This one point I have still to add, since it has a clear bearing upon the subject, viz., that if the symptoms will so far admit of a respite, and if the disease will so far put on a protracted character as to allow the patient to be purged before the opiate, the effect of the latter medicine will be all the more advantageous. Hence I am in the habit of prescribing two scruples of the *pil. coch. mag.*, dissolved in betony water. These I order ten or twelve hours before the exhibition of the narcotic. Nothing need be feared from the commotion that so active a purge would otherwise occasion. The effect of the subsequent narcotic will neutralize it, and a sweet and gentle sleep will be induced.

If wakefulness continue after the fever has gone away, and if the other symptoms have departed, I have observed that rag dipped in rose-water, and applied cold to the forehead, does more good than any narcotics whatsoever.

46. It often happens that the patient is harassed by a troublesome cough during the whole course of the disease. No wonder; the volume of the blood is in vehement commotion; it has grown tumultuous; there is a faction, and sedition, and rebellion amongst its elements; its humours are let loose; they take leave of the general mass; they ooze through the vessels

of the lungs; they spring out upon the membranes of the trachea, and these membranes are very delicate, and exquisitely sensitive. Hence comes cough. It is dry at first, because the matter is subtle, and escapes the efforts to expel it. It afterwards brings up thickened sputa, the expectoration whereof is difficult, inasmuch as the fever has taken its time to bake it hard, and to parch it dry. And now the patient fears that he will be suffocated, for his strength is gone, and the tough and viscid phlegm is more than he can hawk up. In cases like these I rarely use anything beyond the oil of sweet almonds, newly drawn; except when it happens, as it sometimes does, that the patient has an aversion to it. I then do the best I can with the usual pectorals. I prefer the oil of almonds, in the cases were I can use it, to the other cough medicines, chiefly for the following reason: these last we must give in large doses, and in great quantities, if we wish to do any good. Now, the stomach is already weak enough, and sufficiently inclined to vomit. These overload it still further. Other matters, also, which we may have to despatch at the same time, are interfered with.

47. Neither my reason nor my experience have hitherto explained to me upon what grounds the fact of oil being inflammable is an objection to the use of it in fevers. It increases (they say) the febrile action; its nature is heating. Be it so; it has not, surely, more heat than its other qualities will make up for. It is pre-eminently and manifestly pectoral; it opens and smooths the passages; it thus promotes expectoration. Now, expectoration on its part (especially when copious) unburdens the blood of the humours that distress it, and which now are properly secreted. It cools it as well. Hence I never am concerned at the intervention of this symptom, since the patient is often much relieved by it. This one point must be borne in mind, it is unsafe to give the oil in whole spoonfuls at one time, since there is danger of bringing on sickness of the stomach, or looseness of the bowels. We must administer, sparingly and frequently, by night as well as by day; this will promote expectoration, and ease the cough; it will do more than this, it will act as a bland nutriment, and restore, in some degree, the impaired powers of the patient.

48. Hemorrhage from the nose occurs occasionally; some-

times because heating medicines have been given at the beginning of the disease; sometimes because the ebullition has not been sufficiently controlled; sometimes because the patient is in the full vigour of life; and sometimes because the season of the year encourages it. When such takes place the usual styptics are unavailing, e. g., bleedings and ligatures, and astringents, and agglutinants, and contemperants to the acrimony of the blood, &c. These, and the like of these, the practitioner may use according to his choice and discretion. The real business is to discover the treatment that will control the ebullition of the blood; that will regulate its course, and will stop and check its headlong and precipitous career. Now, it is perfectly true that, taking this symptom by itself, and looking at it independently, the remedies on the preceding list (bloodletting in particular) are the right. Nor would I, for my own part, object to employing them. Still, with the exception of bloodletting, they meet the symptom without meeting its cause. To oppose them to *this*, is to put out a fire with a sword. I therefore, in such cases, having tried other plans in vain, apply something like what follows:

℞ Puralane water,
Red poppy-water, āā ℥iss;
Syrup of white poppies, ℥vj;
Syrup of cowslips, ℥ss.
Mix, and make into a draught.

49. Now this must not be taken as if I recommended every hemorrhage to be cured in this off-hand manner. At times it must be left alone altogether; since it may help the patient considerably, both by controlling the excessive ebullition, and by carrying off the disease critically. In reality, it does little good to check this symptom at all; unless it has either gone on for some little time, or blood has been drawn from the arm. This must be remembered. It is the peculiar characteristic of this, as of all other irregular hemorrhages, to require, immediately after their suppression, the exhibition of a mild purgative; otherwise the patient runs the risk of a relapse. On the strength of this we must purge; and that, when otherwise, respect only being had to the stage of the fever, and without any such symptom, we should hold our hand.

50. Hiccup.—This symptom generally occurs with old

men after copious evacuations, either in the way of stools and diarrhœa, or the way of vomitings: this last is the common cause. Hiccup is often the forerunner of death. I must candidly own that I cannot satisfy myself in my speculations upon the cause of hiccup. Nevertheless, I have noticed that it has originated in disturbances and commotions of the stomach and the parts about it, excited by the use of violent medicines. Nature has not strength enough to allay them; nor can she bring them back to their former quietude. Hence arises great danger. With these views, I consider that the direction of our cure lies in the way that Nature takes; so that what she cannot do of herself, art must support and help her out in. Diascordium, therefore, in full doses, to the amount of two drachms, has fulfilled my intentions. Dill, and the rest of the vaunted specifics, I have used without any advantage whatsoever.

51. If, during the progress of this disease, we find that diarrhœa has set in (and in our ninth section we have shown that, at the commencement of the disease, when emetics have been indicated but have not been given, such is usually the case), I repeat the statement, that, with such a symptom, an emetic may be given during any stage of fever, even (as aforesaid) after the tendency to vomit has gone by; provided always, that the weakness of the patient does not contra-indicate one. Upon this subject, however, I think that enough has been said in the preceding pages. I can only in this place say what is to be done when an emetic *has* been given, and the diarrhœa still persists,—a state of things that very rarely occurs, except in inflammatory fever; in which complaint it is remarkable that an emetic, instead of stopping a diarrhœa, will create one. However, in the regular cases I administer the following clyster; and I prefer it to any kind of astringent:

℞ Pomegranate bark, ℥ss;
Red roses, two handfuls.
Boil in a sufficiency of milk from the cow; strain to half a pound.
Dissolve in the mixture
Diascordium, ℥ss.
Mix, and make into an enema.

I would not recommend too large an injection of this enema. In and of itself it promises to bind the bowels. Its volume,

however, may distress them; in which case it encourages the looseness which it was meant to check.

52. Here there is room for an objection—it is better for a diarrhœa that has once set in, especially at the turn of the disease, to take its course than to suffer check; inasmuch as fluxes of this kind are frequently critical, and carry off the disease. In answer to this, I by no means deny that such is the outlet through which fevers frequently find their passage, and make an exit. It happens, however, too rarely for us to calculate on.

Moreover, the principle upon which, when we spoke in general concerning the cure of fevers, we strove to show the necessity of stopping such a flux as the one in question, is here in full force; to which I must add a statement of what (in my mind) is a weighty fact. To the full depuration of the blood, it is essential not only that there be a separation of some of its parts in the way of separation as *dregs*, but that there also be the separation of some of them as *flowers*. This is what we see every day in rich and heterogeneous fluids of all sorts. Hence, if you act too much by the way of a diarrhœa, you will succeed only in obtaining, with all your trouble, a middle depuration; whilst it is very likely that the excretion which ought to have come last will be the first. I admit that when the separation in the way of flowers has already taken place (and this, by the by, is usually performed slowly and insensibly; rather by a fuller and more abundant transpiration than by any manifest sweat), the diarrhœa, even if it really set in, is not a very threatening symptom. Nevertheless, we ought to know that such arises only from the fact of the purgation, dedicated to the removal of the fæces, not having been duly brought on. These fæces are retained beyond their time. They take upon themselves the character of a malignant ferment; they then stimulate and irritate the bowels to excretion. I say nothing of the watery character of the excrement; such is generally its character; and it proves that it is anything rather than a critical solution of the disease.

53. Perhaps we may enumerate ileus, as the last of the symptoms which supervene upon fever; since the violent vomitings which occur in its early stages frequently give rise to it.

Very formidable is this affection; and deadly does it appear to almost all who have contemplated it. How should it be otherwise? The fibres of the intestines, which ought to contract from above downwards, reverse the action; so that the contents of the bowels are passed on into the belly, and not towards the rectum. They make towards the throat, and regurgitate. Purgatives taken by the mouth are suddenly disgorged by vomitings, and sharp clysters become emetics. In my mind, too, that exquisite and intolerable anguish which supervenes upon an attack of ileus has no other cause than the same inverted action of the bowels, the manifold circumvolutions of which are intended by Nature as a winding passage for the regular descent of the fæces; and when these are constrained to act against the proper motion of their fibres, the torments of colic are the result. These become circumscribed to a single part, with a boring pain, when either the valve at the head of the colon, which prevents the regress of the excrements to the ileum, or any other membrane of any of the circumvolutions, has to bear single-handed against the force of this inverted impulse. To this inversion, as the cause of the pain, we may assign two causes, viz. obstruction and irritation.

54. *Obstruction.* It is a necessary consequence and a known fact, that whatever greatly obstructs the intestines, so that nothing can pass downwards, produces an inverted motion of the bowels. In the list of such obstructions authors place hardened fæces, gross volumes of flatus, intestinal knots, strangulated hernia, inflammations, and tumours in the diameter of the bowels. Now, as it is undeniable that inverted motions, referable to these causes, are motions of the ingesta rather than of the intestines; and as the inversion is one, not of the whole intestinal canal, but only of the parts above the seat of the obstruction, I shall call the affection to which it gives rise bastard ileus.

55. *Irritation.* I consider that in ileus the cause of the inverted peristaltic movement of the bowels is generally as follows:

There is a fresh attack of fever, and a commotion of the blood; and acrid and malignant humours are lodged in the stomach, and in those parts of the intestinal canal that lie nearest to it. The stomach is first to invert its action. It contains matter that frets it. It is constrained to cast it up;

violently and through the throat. Its action is strong. The small intestines are debilitated; they are continuous with the stomach, and they yield to its influence. The large intestines are the last to give in. The stomach vomits; it leads, and the other intestines follow suit. Now this is the true ileus; and this is one for our present purpose. For this no method of cure is yet known, whatever may be said about bullets and quicksilver; things which, whilst they can effect but little good, can do much harm. I have adopted the following method with success:

56. When it is clear, from the fact of clysters being thrown up though the throat, and from other undoubted signs, that the case is one of true ileus, I labour hard for these three points:

a. To stop the inverted action of the stomach; the cause of that of the bowels.

b. To strengthen the intestines that have been weakened by the acridity of the humours.

c. To relieve both the stomach and the intestines of these same humours.

To meet these indications, I take the following line of treatment:

57. I begin with prescribing one scruple of salts of wormwood out of one spoonful of lemon-juice, to be taken night and morning. I order, for the time between, a few spoonfuls of mint-water, without either sugar or any other addition, to be taken twice every hour. By this alone, used repeatedly, both the vomiting and the pain that it brings on will suddenly cease. I order, too, that meanwhile a live kitten be kept continually lying on the naked belly. After this, two or three days after the pain from the vomiting has wholly ceased, I give one drachm of the *pil. coch. maj.* dissolved in mint-water. This last, too, I order to be taken during the whole working of the pills, in order to guard more surely against a return of the vomiting. The kitten is not to be taken off before the patient begins with the pills.

58. I have observed that it is to no purpose to give either these pills, or any other cathartic medicine (no matter how strong), until the stomach has been strengthened, and restored to its natural movement; and until, along with it, the intestines have been similarly restored; otherwise, the purgatives become

emetics, and do more harm than good. Hence, I defer all operations with purgative medicines until I have for some time employed those medicines which act upon and fortify the stomach.

59. I prescribe a very low diet; allowing the patient only a few spoonfuls of chicken broth twice or thrice a day. I keep him also to his bed during the whole illness, and until signs of a perfect cure have appeared. Even after this I advise him to continue for a long time the use of the aforesaid draught, and to guard against the cold by means of doubles of flannel on his belly. I thus ensure him against a relapse; to which the disease is preeminently liable.

60. These few observations embody the whole of my method in the treatment of this disease. I trust that no good judge will despise them on account of their simplicity, nor yet for their want of ostentation in respect to either my language or my medicines.

61. These, too, are the symptoms which occur in this fever. There are others, besides, which I may omit to mention at present; partly because they are of no moment, and partly because they require no peculiar treatment. Treat the fevers properly, and they will go away of themselves.

Thus much concerning the continued fever of this constitution and its symptoms.[1]

[1] For certain extracts from the earlier editions, see Appendix A of the present volume.

CHAPTER V.

THE INTERMITTENT FEVERS OF THE YEARS 1661, 1662, 1663, 1664.

1. I STATED in my third chapter that the constitution which pervaded all the aforesaid years was preeminently favorable to the production of intermittents of all sorts; and I will now impart to the reader such observations as were carefully made upon them. I will add to these a few remarks upon those intermittents (few in number) which since that period have occurred sporadically. I shall thus avoid the necessity of breaking the thread of my discourse when I come to the history of the time succeeding.

2. In the first place, if we mean to get even a conjectural glimpse as to the nature and character of intermittents, we must bear in mind three points of time in these paroxysms: —1, the stage of exhorrescence; 2, the stage of ebullition; 3, the stage of despumation. To give a brief opinion concerning the first of these states, I conceive that it arises from the following cause: The febrile matter, which before its regular turgescence has been imperfectly assimilated with the volume of the blood, has become, not only useless, but inimical to Nature, whom it frets and vexes. She, on her part, stirred up by what we may call a natural sense, and planning, as it were, an escape, creates a shivering and a shaking throughout the body, as the evidence and the measure of her aversion. Just in this way will purging draughts cause shiverings and the like in delicate people. So also will poisons, when swallowed unawares.

3. Now Nature thus irritated (to pass to the stage of ebullition), in order that she may best shake this foe from off her shoulders, has recourse to fermentation; such being her usual instrument in fevers and certain other acute diseases. By this she endeavours to rid the volume of the blood of its intestine enemies. By the means of such ferments those elements of peccant matter, which had hitherto been mixed intimately with the blood, are disconnected from it. They also begin, in some

sort, to collect among themselves; they are more easily to be acted on; and they come out all the clearer for their despumation. That this is really the case is strongly supported by the fact, that those who die of intermittents, if they die during the fit at all, go off in the first stage. If they hold through to the second, they are safe for that attack at least. These two stages are each distressing to the patient; but when they are over, the one that comes next (the third) has succeeded, and the work of despumation is in hand. The symptoms begin with being alleviated, and end with disappearing altogether. By the term *despumation*, I mean one thing only, viz. the expulsion or separation of the febrile matter, previously modified and subdued. Now that which is separated comes off partially as flowers and partially as dregs. We may see this in other fluids beside the blood.

4. With these premises we may see why the fit returns when the patient seems out of danger. The febrile matter still hangs about him. Like broods of bees that grow gradually at stated times, the latent matter, regulated by the character of its type, presents itself anew. It provides fresh work for Nature; and runs the same course that it did before. Now, if any one ask why such a secret *fomes* has not been sufficiently reduced by the previous effervescence; why it has not been eliminated at once with the rest of the peccant matter; why it gives rise to a new tragedy; and why, instead of taking one, two, or three days to come to maturity, and to excite a second paroxysm, its progress varies with the nature of the intermittent—if any one, I say, requires answers upon all these points, I am ready to confess my ignorance. No one, that I know of, has hitherto gone far enough in such matters to flatter himself for having solved these problems of Nature.

5. For my own part, I am not ambitious of the name of a *philosopher*, and those who think themselves so, may, perhaps, consider me blameable on the score of my not having attempted to pierce into these *penetralia*. Now writers like these I would just recommend, before they blame others, to try their hand upon some common phenomena of nature that meet us at every turn. For instance, I would fain know why a horse attains its prime at seven, and a man at one and twenty years? Why, in the vegetable kingdom,

some plants blow in May and others in June? There are numberless questions of this sort. Hence, if many men of consummate wisdom are not ashamed to proclaim their ignorance in these matters, I cannot see why I am to be called in question for doing the same. Etiology is a difficult, and, perhaps, an inexplicable affair; and I choose to keep my hands clear of it. I am convinced, however, that Nature here, as elsewhere, moves in a regular and orderly manner; since the matter of tertians and the matter of quartans obey her laws, and are determined by them, just like the matter of aught else.

6. All agues begin with shiverings and rigors, succeeded by heat, and terminated by sweats. In each of the first two paroxysms (the cold and the hot) the patient has a strong desire to vomit. He is thirsty, has a dry tongue, &c. These symptoms decline in proportion as the sweats come on. When these have broken out copiously, the fit seems to have gone off. He that was but just now sick has become a healthy man. Soon or late, however, the paroxysm repeats its attack; the intervals being as follows:—for the quotidian twenty-fours; for the tertian eight and forty; for the quartan sixty-two; calculating from the beginning of one fit to the beginning of the next. The two latter forms frequently become double; i. e. a tertian comes every day, and a quartan, after attacking the patient for two days running, leaves him free during the third. It may, however, fall on each of the three days (three times in all), in which case it is called a triple quartan. It takes its name from the type that it first assumes.

7. This doubling of the fits is sometimes produced by the excess and activity of the febrile matter. In this case, the superadded paroxysm precedes the primary. But it may also proceed from an unnatural prostration and dejection of strength on the part of the patient, from a want of vigour on the part of the paroxysm, from rapid cooling, and from the effect of inordinate evacuations. In these cases the primary fit comes first, the superadded one being at once milder, less distressing, and of shorter duration.

In the first form, the turgescence or orgasm of the febrile matter is so great that it cannot wait its due time. The period seems too long. It commences the work of despumation prematurely.

In the second, the blood is too weak; it wants strength to shake off the febrile matter at once; it calls in a paroxysm extraordinary. By the aid of this, it rids itself of the last remnants.

In these two conflicting principles we must, perhaps, seek the solution of the anticipation and of the procrastination of paroxysms in the ordinary and regular intermittents. Each occurs in these fevers frequently: but it may be a whole twenty hours beforehand or behindhand with the fits.

8. Intermittents are of two kinds, vernal and autumnal. They may occur, indeed, during any intermediate period of the year. They do so, however, but rarely, and when they do, can be referred to the season which is nearest. Hence, I shall embrace them all under these two heads. The particular dates to which they may for the most part be referred are the months of February and August. They may come sooner; or they may come later. This depends upon the atmosphere. The influences that develope or retard them may be sparing or abundant. Consequent, also, upon this, is the extent of their epidemic character. A palpable instance of an early autumnal intermittent is the case of a lady, in the year 1661, who lived in my neighbourhood. She was seized with the first fit of a quartan ague as early as the 24th of June. Many others were seized at an equally over-early period. Now these fevers became pre-eminently epidemic; a proof that in the atmospheric constitution that then prevailed there was an excessive disposition towards diseases of this sort. As the year advanced they increased in frequency.

9. So necessary to good practice is this distinction between the intermittents, that unless we steadily bear it in view we shall pronounce no sure prognosis as to their duration; and we shall adopt no proper regimen for the well-doing of our patients. The time of the year and the character of the fever must be kept in mind. True it is that the fevers of the two seasons have some common characters between them. Look at the form of their accession: it begins with shiverings; heats break out next; sweats carry off the paroxysm. Look, too, at the difference in their type. In respect to this, there are tertians both in spring and autumn. In the meanwhile I am

quite sure that the two fevers wholly differ from one another in their respective natures, or (changing the term) *essentially*.

10. To begin with the vernal ones. They are almost always either quotidian or tertian; and they set in early or late, according to the influence of the season.

Now during the cold of winter the animal spirits become strong and concentrate from their recess. But the sun comes on with its warmth, and calls them forth in all their freshness. In the meanwhile, viscid humours (less viscid, however, than those that the heat of the previous autumn had wrought up even to seething and to boiling) have been accumulated by nature during the whole winter in the volume of the blood. Against these the animal spirits struggle. They try to fly off; but they get entangled and netted in, and held back. This it is that excites the vernal ebullitions. Exactly in this manner do full beer barrels that have lain long in cool cellars or in the sand, begin to work as soon as they are set near a fire, when their liquor becomes ready to fly. The blood does the same. Similarly affected, it tries to clear itself; and it does its work quickly when the volatile spirits second it. But too full a supply of viscid juices retards the fermentation that has begun. Now, although this happen, the vernal effervescence is rarely continuous, permanent, and consistent. It rather goes on by fits and starts, and distributes itself amongst a multitude of paroxysms. The blood is choke-full of these rich spirits, and nature sets about her business in a hurry. Partial separations (after the manner of perfect solutions) by particular paroxysms she prefers to the general separation of the whole.

This seems to me to give a fair reason why, during the season of spring, and most especially in that portion of it which is nearest to summer, continued fevers are rarely met with; unless, indeed, the constitution of the year be epidemic; inasmuch as fermentations that set in at such periods are either suddenly allayed or else hasten towards an intermission. Finally, that part of the humours which is over prone to separation may transfer itself elsewhere, and that violently and prematurely. Whereby quinsies, and peripneumonies, and pleurisies, and similar scourges, presently increase and multiply. All these more especially show themselves at the latter end of Spring.

11. I observe that spring intermittents are neither long nor dangerous, and that they are always beneficial. A patient shall be both old and weak, and that to any amount; he shall have been tampered with by the pernicious and officious interference of the most ignorant of practitioners; yet, providing that foul means have not been used, he shall escape death. I have seen, however, spring tertians so maltreated by undue bloodletting, by undue purging, and by unsuitable regimen, that they have spun out their existence until the period of the autumnal ones; and then as the time of the year is diametrically opposed to the genius of the disease in question, it annihilates it at once. The patient, nevertheless, has in the interim been so worn out by the repetition of the fits, and the protraction of his ailment, that he seems to be in the last extremity. So far, however, as I have hitherto observed, he always eventually struggles through.

12. Never yet, during this disease, has it been my fortune to observe those formidable symptoms which, as I shall mention in my forty-sixth section, come in the wake of the autumnal intermittents; I mean by these the deadly inflammation of the tonsils, the hardened belly, the dropsical swellings, &c. More than once, however, I have observed that, partly from the length of the disease, partly from the repetition of the fits, and partly from evacuations, patients have, in their extreme debility, been seized with mania; which has gone off at the same rate that their strength has been recruited.

13. Autumnal intermittents are very different. An autumnal tertian, in a year when it is not epidemic, and in a case where it attacks a healthy subject, may occasionally clear itself off in as short a time, and with as slight a group of symptoms, as ever a vernal one may. But, when it sets in as an epidemic; when it attacks a man advanced in years; when it lays hold of a weakly frame; it is never free from danger. Besides this, it may tyrannize over the patient for two months, for three months—even until the next spring. And a quartan is more dangerous than a tertian; it is also more obstinate. When it attacks a man advanced in life, it may kill him before he has suffered many paroxysms. Those that die thus, die, for the most part, as I have stated before, during the shaking fit, and

consequently in the first stage of the paroxysm. If the patient be not so much old, as just upon the limits of old age, if he have not passed the threshold, he runs less danger of being carried off in the beginning of a paroxysm. At the same time, he will find it hard to shake off the fever much before that part of the next year that corresponds with his first seizure in the present. Sometimes, also, there is that left behind which death only will cure—

"hæret lateri lethalis arundo."[1]

14. A quartan may at any time change its type. It may also engender a multiplicity of symptoms; e. g. scurvies, indurated bellies, dropsies, &c.

Young men can bear against this disease. They sometimes get rid of it by the middle of winter. It oftener lasts until the vernal equinox; sometimes even until the autumn following. This is the case when they have been purged and bled. I have often been surprised at infants. I have seen the tenderest of them struggle with this disease for six whole months continuously. I have seen them keep their ground against it. I have seen them, like so many little Herculeses, triumph over it in their cradles.

15. Here I must observe, that whatsoever be the age or temperament of a patient with a quartan ague, if ever in his whole previous life—no matter how long back—he has suffered from it before, a second attack will give him but little trouble. After a few fits it will go off of its own accord. This is worth knowing.

16. In regard to the treatment of spring agues, I consider that they should always be left to themselves, and that they should not be meddled with. No one that I know has ever died of one; whilst those, on the other hand, who have busied themselves to get quit of them (especially by the use of evacuants), have only made the disease more confirmed, more obstinate, and more refractory. If, however, the importunate impatience of the sufferer earnestly insist upon the interference of his physician, he may find a variety of methods which he

[1] Virg., Æn. iv, 73. [G.]

may apply to the cure of spring agues with good results. I am satisfied of this from abundant observation.

17. Occasionally an emetic, opportunely administered, so that it may finish its work before the beginning of the fit, has succeeded wonderfully; especially if you give a moderate quantity of the syrup of white poppies, or some other narcotic, after the emetic has acted, and before the paroxysm has begun.

Occasionally you may witness a restoration to health, brought about by means of diaphoretics. These forward the perspiration that should come with the third stage. For this the patient must be covered close with bed-clothes; covered as close, and kept as long as his strength will bear. This succeeds most especially with the vernal quotidians. At this season the humours are not over gross; so that their solution, which would otherwise be incomplete, is fully consummated. In autumn this is never the case.

I have in my lifetime cured tertians by clysters, given during the days of intermission, with intervals of three or four days between each.[1]

18. Meanwhile, if either the free use of the lancet—a practice to which the season itself inclines the incautious—or the previous debility of the patient, have impoverished the spirits that have thus suddenly undertaken the office of despumation, it is very likely that vernal fevers of the kind we speak of, despite of all remedies that we may have recourse to, will take upon themselves the protracted character of autumnal ones. Still, if even they do so, they are not usually so obstinate. They either go off of themselves, or can be put to flight by the aid of gentle remedies.

19. Autumnal intermittents are not so lightly removed. Upon these I make a few statements. If the autumnal constitution be epidemic, they set in about the middle of June; if it be not so, they wait for August and the beginning of September. In months later than these they rarely occur.

When a great number set in at the same time, we have an

[1] The following passage occurs in the edition of 1668.—[G.] "Against spring tertians I have hitherto found nothing more simple and more effectual than low diet without meat, a mild purge on the days of intermission, and a narcotic a little before the next fit. This treatment has even cured autumnal agues."

opportunity of observing that the paroxysms occur, for the most part, at one and the same hour of the day, sometimes sooner, sometimes later; that they take place in the same manner; that they move at the same rate; except only in those cases where the exhibition of medicines, with the power of accelerating or of retarding their progress, has, in certain constitutions, modified or perverted the order.

20. It must also be observed, that in the beginning of intermittent fevers (especially when they are at once epidemic and autumnal) it is no easy matter to detect their intermittent character within the first few days of their accession, since they may commence with the super-addition of continued fever. It is also difficult at first, unless you observe with great minuteness to detect anything beyond a slight *re*-mission of the disease. By degrees, however, they end in perfect *inter*-missions, and take the type that answers to the season of the year.

21. In regard to their type, they are either tertian or quartan. Of quartans, we may fairly say that they are the true brood of autumn. Each kind of this season is so connected by a sort of affinity with the other, that the two often appear (for a time at least) to change natures. They soon, however, return to their original type.

But *vernal* tertians never take the type of quartans at all. The two sorts differ from one another *toto cœlo*. Nor have I ever observed that, during the spring, quotidians have ever occurred; unless, by a laxity of language, we call double tertians or triple quartans by that name.

22. I conceive that these intermittent fevers originate in the following manner. At the beginning, and during the advance of the year, the blood is proportionably exalted until it finally reaches its full height and vigour.

The same is the case with vegetables. They exhibit, in their growth and decay, the periods of the year.

From its high *acme*, as the season wanes, the blood, moving in parallels with the year, gradually declines; and it does so with increased rapidity when any accidental circumstance, such as immoderate losses of blood, cold, crude and excrementitious *ingesta*, the unseasonable use of baths, or any other cause has

conspired to promote it. In this state of decline the constitution of the blood[1] is liable to morbid impressions of all sorts; and these are supplied by that particular constitution of the atmosphere which is epidemic at the time in point, and that in the way of intermittents. The evidence of the ebullition goes this way. It is brought on and it lays hold of the humours of the blood; and these are often very degenerate; and the fever that arises from them is of a bad character, and replete with formidable symptoms. In all cases the blood is in a great measure stripped of its spirits; it is parched up by the preceding summer; it gets through its ebullition with a slow movement; and it requires a long period for its despumation.

23. Now in order to make it clear that the cure of an autumnal ague is really a matter of difficulty, I must insist upon the difference between the continued and intermittent fevers of that period. It lies chiefly in the manner of getting through their effervescence. Continued fevers do it uninterruptedly and at an even rate; intermittents at different periods and by instalments. In each, however, nature works out the fermentation in nearly the same time, i. e. 336 hours, there or thereabouts; nor more nor less, if you leave it to her, is the ordinary period required for a thorough purification of the volume of the blood of a human body. Just so cider has its time, wine and beer theirs, as the proper period of their respective depurations.

24. However true it may be that in intermittent fevers, (as is the case with quartans,) the blood may be six months at work upon its despumation before it accomplishes it, the time taken is in reality no longer than that of a natural continued fever. Calculate rightly, and you find that fourteen days of twenty-four hours each make 336 hours; whilst by allowing five hours and a half to each paroxysm of a quartan, you find in one full attack fourteen days, or 336 hours.

[1] In the editions of 1666 and 1668, the following passage stands in the place of the present sentence.—[G.] "Now if the blood, thus reduced to a state of decline, becomes so impaired as to lose its powers of resistance, and to sink before the influences that attack it, Nature devises a new method: she prepares a fresh texture for the worn-out mass, and remodels it; she aims at separating with the least possible disturbance those elements which most especially favour the degeneration."

Now if any one object that a quartan (and, as the same reasoning applies to all other intermittents, I name this only in the way of illustration,) may sometimes run on beyond a period of six months before it completes its career, I answer that the same takes place not unfrequently with the continued fevers of the constitution. These often last more than fourteen days. In either case, if you allow the effervescence (especially towards the end of a fever) to run its course naturally and in due form, if you take care that it is kept up in its proper vigour, the despumation will be completed within the aforesaid space of fourteen days or 336 hours. If, however, during the same period, (that is, at the decline of the fever,) you put any untimely check upon this same effervescence or fermentation, either by means of refrigerants or enemata, and if you curb it (as it were) in its natural career, you must not wonder if, when the order of nature is disturbed, the disease becomes indefinitely protracted. By all this the tone of the human blood is relaxed, so that it cannot prepare itself for its effectual despumation. In weak and worn-out frames the same takes place spontaneously, unless, by the aid of cordials, you can assist the flagging efforts of Nature, and render her competent to the despumation of the blood.

25. Now, all this which I have written concerning the period and the continuation of the fermenting processes, applies to those fevers only that have attained a stated habit and character. I am by no means ignorant that there are certain fevers, continued as well as intermittent, which are of a transitory and indefinite character, and which, in their fermentation, do not attain their proper period. Of this sort, are those that arise out of slight errors in regard to the six[1] (so called) *non*-naturals, i. e. the irregularities of food, drink, air, &c. Such as are thus seized soon recover. They occur, occasionally, in young subjects, full of pure blood, and endued with many animal spirits. Fevers of this sort have a very spirituous, subtile, and rare matter to rely on. They manage their fermentations quickly: they clear the ground they have to run over at a great rate, and rapidly disappear.

[1] See note in p. 34.

26. All this they do on the strength of the conditions required for fermentation; and herein the first point requisite is as follows: the matter susceptible of fermentation (whether wine, blood, or any other fluid) must be of such a tenacity and viscidity as to be able to detain the spirits within it. These are in a manner netted in, and entangled. They can, however, move about, and bestir themselves in the mass of the liquor. Just so are birds fixed by birdlime, and flies and bees by honey; they can buzz and struggle, but they cannot fly away. It is only necessary to remark in passing, that the liquor must not be too clammy; it must not clog and oppress the spirits to the degree that they are unable to stir.

27. Upon these principles as a groundwork—principles which to me, and I hope to others, seem based upon fair reasons—it is not surprising if I erect as a superstructure of practice little beyond the method which I employ in bringing continued fevers towards the full completion of the due work of despumation. It is by means of an effervescence limited to a definite period that Nature expels the matter of continued fevers. Consider this process, and you will find that those of intermittents accurately coincide with it. In other points connected with their species and peculiar natures, I confess that these last differ broadly from continued fevers, as well as from one another.

Hence we must do one of two things: we must by careful and anxious observation of the processes by which Nature relieves herself of this disease, draw indications as to the manner by which the incipient fermentation may be promoted, and the patient be restored to health; or else we must discover a specific. By this we may march against the malady with effectual remedies, having previously penetrated into its specific cause.

28. Upon one of these two principles should be based our indications of treatment. I have, for my own part, tried both; and I may say, without boasting, that I have done so with great care and with unwearied attention. Nevertheless, I have not yet been fortunate enough to cure autumnal intermittents by any sure practice, and upon any *methodus medendi*, before they have completed those stated fermentations which I have spoken of above. Such is the case, sad as it may seem

to the sufferers who are constrained against their wills to wait thus long for a recovery.

In sober sooth, I consider that any man, if such there be amongst mortals, who, either by any sure line of treatment, or by the application of any specific remedy, can not only control the course of these intermittents, but cut it short altogether, is bound by every possible bond to reveal to the world in general so great a blessing to his race. If he withhold it, pronounce him at once a bad citizen, and an unwise man; since no good citizen monopolises for himself a general benefit for his kind; and no wise man divests himself of the blessing that he may reasonably expect from his Maker, when he girds his loins for the welfare of the world. Honours and riches are less in the eyes of good men than virtue and wisdom.

29. Difficult, however, as it may be to cure these autumnal intermittents,[1] I will state what I have found to be of any particular service in the treatment of them.

I have long taught that (except in the manner that I shall mention by and by) the attempt to cure autumnal intermittents by *catharsis* is highly dangerous; the worst form of *catharsis* being bloodletting. Frequent experience has told me this. In the tertians in question (especially if the constitution be epidemic) that we attempt to cure by bleeding, your

[1] The following passage stands in the editions of 1666 and 1668, in place of pp. 29-35.—[G.] "In the meanwhile I consider the point difficult, and pronounce the result to be dangerous. A clear proof of this may be found in the use of the so-called Jesuit's bark. However much its application may allay the present ferment, there still remains behind a residuum of matter, which ought to have been got rid of by fermentation. This soon renews its strength, and challenges Nature to a fresh struggle. I know an instance where a quartan lasted for years, bark having served only to interrupt it. Some have been killed by having it given just before the fit. Nevertheless, I will admit that, in the decline of fevers, the prudent and guarded use of remedies of this sort has occasionally done good, and has removed the fits altogether, especially when the epidemic character of the season has been other than intermittent. However, although from the present remarks we show no gleam of hope as to the chance of any quick method of restoring health, we still leave much to the learned and sagacious physician. He may still regulate the depuration of the blood by the limits of nature. He may still meet the symptoms that occur and supervene in the disorder. Upon these points, then, I will treat as briefly as the nature of the question allows me, embracing in the same remarks both the tertian and quartan forms of ague, the same treatment applying to both."

lancet must cut the throat of the fever with the same stroke that pierces the sides of the vein; otherwise, even with the youthful and athletic, it resists for a great length of time. In old subjects, also, the disease distresses and continues. With these last, however, it is death that succeeds to it: the immediate forerunner being deadly inflammation of the tonsils, described above. Besides this, venesection hastens those other symptoms which have been spoken of as either the concomitants of autumnal intermittents during the period of their decline, or as the *sequelæ* after their termination; whilst in quartans it is so pre-eminently prejudicial, that youths, who might otherwise have got rid of the disease within the first six months, have been kept ill half a year longer by the bleeding. As for old men, who without venesection might have been cured within the year, they run the risk, not only of keeping their complaint for a still longer period, but also of, eventually, dying of it.

What has been said concerning venesection applies, *mutatis mutandis*, to purging, only that the last, unless exceedingly repeated, is rather less mischievous than the former.

30. Autumnal tertians I attack thus: I confine the patient to his bed, cover him with blankets, and sweat him with a sage posset about four hours before the fit. When the perspiration begins, I give him two scruples of the *pil. coch. mag.* dissolved in an ounce of the following mixture:

℞ Aqua vitæ, Oj;
Venice treacle, ℥iij;
English saffron, ℈j.
Mix, and let stand for use.

Having taken this, he keeps on at his sweating until some hours after the time for the paroxysm to begin, carefully guarding against those interruptions of the diaphoresis which the motions from the purgative may give rise to.

31. I have succeeded better, with this treatment, in getting rid of a fit of tertian ague, than with the usual decoction of gentian root, centaury tops, senna, and agaric;—a receipt for a similar purpose. Each excites the contrary actions of sweating and purging at the same time; by which means they break and interrupt the regular course of the paroxysm. Mine acts

like the other in this respect. It acts, however, more effectually, and quite as safely. By this treatment I have driven away many autumnal tertians; neither have I, during these last years, been fortunate enough to improve on it.

32. In double tertians, where the patient has been weakened by evacuations, or by other causes, and where the fever has changed its type, perspiration must be provoked, as before, within the same number of hours previous to the expected paroxysm, and by either the same medicine, or by some stronger and more active diaphoretic. This may be repeated when the genuine paroxysm next following sets in. The *pil. coch. mag.*, however, must be omitted. It is neither safe nor serviceable to weaken the patient with further purges;—so administering to the doubling of the fits. When this doubling of them has weakened the patient in any very great degree, I prescribe the following electuary:

℞ Conserve of borage flowers,
Conserve of bugloss flowers, āā ℥j;
Conserve of rosemary, ℥ss;
Candied lemon-peel,
Candied nutmeg,
Venice treacle, āā 3iij;
Confection of kermes, 3ij.

Mix, and make into an opiate; of which take a portion of the size of a hazel-nut night and morning. Drink upon it six spoonfuls of the following julep:

℞ Meadow-sweet water,
Treacle-water, āā ℥iij;
Syrup of cloves, ℥j.

Mix.

Or, instead of this, I give some simple epidemic water, sweetened with sugar; I forbid the use of clysters, and I allow the patient chicken-broth, oatmeal-gruel, &c. &c.

33. In regard to the cure of quartans, those who are in the least degree conversant with medicine know how unsatisfactory are all those methods which have been designed for the cure of this *opprobrium medicorum*, Peruvian bark only excepted. Even this checks rather than conquers them. They lie in abeyance for a fortnight or three weeks; and the patient who has been severely distressed by them has the great advantage

of their delitescence; he gains a breathing time. They break out, however, afresh; are as harassing as before, and, for the most part, however often the bark may be repeated, require a long time before they are wholly dislodged from the system. I will state, however, what I have ascertained concerning the manner of exhibiting this medicine.

34. The first thing to look to is this—we must not lay it on too soon, i. e. before the disease has, in some measure, exhausted itself by its own action; certain cases, however, in an exhausted and debilitated condition of the patient, may indicate an earlier adoption of it. In giving it too soon, we have not only to fear lest its premature exhibition may render its action nugatory, and so disappoint our hopes, but we must consider that the very life of the patient may be endangered, if we suddenly stop that despumation of the blood which the whole effort of fermentation is aiming at.

In the next place, no part of the febrile matter must be withdrawn from the system by purging, and much less by venesection, with the notion of promoting the action of the bark. With the corporeal economy weakened on both sides, the paroxysms return all the more readily, and all the more certainly, when the virtues of the powders have once for all been expended. To me it seems better to imbue the blood with the aforesaid drug moderately, gradually, and at long intervals before the fits, than to attempt, by a single blow, to cut short the paroxysm at its accession; since, by so doing, we give the remedy a longer time to do its work in; and we avoid all those risks which might arise to the patient from any sudden and unseasonable check, whereby we attempt to suppress the paroxysm during its full development, and during the putting forth of all its activity.

Finally, the powder must be repeated at short intervals, so that the first dose may not have lost its effect before the exhibition of a second. By it a frequent and good habit of body will be recovered, and the disease be wholly dispelled.

35. Upon this ground I prefer the following form to any other: Mix one ounce of Peruvian bark with two of the syrup of red roses, of which the patient must take a bolus, of the size of a nutmeg, night and morning, every day when there is no

genuine paroxysm; he must continue to do so until the whole of the confection has been taken. He must repeat this once a fortnight, three times.

36. Perhaps this bark may be used as advantageously in tertians (vernal and autumnal) as it is in autumnal agues. To speak the truth, however, and to speak also to the purpose, my experience tells me thus much, viz. that if the patient who has been seized with either the one or the other of these forms of fever be either a child or a youth, it is best not to meddle at all,—neither in the way of medicines of any sort, nor yet in that of air or diet, inasmuch as I never yet have known harm come where Nature has been wholly left to herself. I have observed this more especially in infants, and have been surprised at it. The blood does its work of depuration, and the fevers spontaneously decline.

If, however, on the contrary, you order a strict diet; if you administer every now and then purging medicines (and this is generally done on the plea of clearing away obstructions, and expelling the humours that are lodged in the *primæ viæ*); or, if (as is often done) you prescribe bloodletting during an epidemic constitution, the result will be, that the disease will run on for a length of time, and that the patient will be exposed to a thousand symptoms, all dangerous.

37. If the patients be advanced in years, there is great danger in either disease (autumnal tertian or autumnal quartan), not only of a protracted duration, but of death itself; so that the physician who has done good neither with Peruvian bark nor with any other remedy, must, at least, support Nature, and help her as he best can, with those aids that she requires in the work which she has undertaken. In worn-out constitutions, the fermentation must be supported by the help of cordials (such as wormwood wine) and strengthening diet; otherwise, it will be the fate of the patient to be harassed with uncertain and fruitless paroxysms, and to grow weaker and weaker. The disease will keep its ground, until Nature, previously weakened, becomes unable to resist some stronger paroxysm, and sinks before she reaches the period of ebullition: in which case the patient dies during the cold fit. This is frequently the case with old men, weakened by a long use of purgatives. I

have sometimes thought that they have gone off during the cold fits of even the first paroxysms, when, by the use of some sufficiently strong cordial, they might, for a time at least, have been kept up.

38. After the blood has been allowed the time necessary for despumation, it is requisite for those patients who are advanced in years to be removed, either at the very time, or a little before, for change of air. The best they can do is to visit some warm spot; the least they can do is to leave the place where they were taken ill. It is extraordinary how much this change of air conduces towards a thorough recovery. Meanwhile, change of air, before the time in question, is not only of no avail in the restoration of health, but is prejudicial. Even if the patient were to visit some warm southern region, his blood (when the morbid movements had once been established) would still have to go through the work of depuration. In vain, therefore, would he expect the benefits of a new and unusual air until the motion of the blood, having taken its course and grown its growth, was capable of recovering health. This change of air, then, must be sought when the patient first gets rid of his fits; thus, in a quartan which began in the commencement of autumn, we must change our air about the beginning of February, and no earlier.

39. If, however, the patient either will not, or cannot with convenience, be removed, he must use instead, at the time in question, some powerful medicine, the effects of which may be such as to promote, powerfully, and at once, the flagging processes of depuration, and, if possible, complete it. To effect this I recommend—

℞ Egg electuary,
Venice treacle, āā ʒiss.
Dissolve in two ounces of aqua vitæ, or aqua cælestis, and give the mixture two hours before the fit.

I have prescribed this with success during the decline of this disease. Nevertheless, I must admit that medicines thus heating may either double the paroxysms or change the intermittent into a continued fever. This, Galen[1] has long ago

[1] Ad Glauc. de Meth. Med., 1, 12, tom. xi. p. 40. [G.]

observed. The same practice may be extended to young persons, due care being taken with it. With children, however, it is not only out of place, but absolutely dangerous. This I have long noticed.[1]

40. Before I come to the close of this discussion, I must notice that whatever has been said concerning the duration of autumnal intermittents, and whatever has been said concerning the time required for the despumation of the blood, apply only to the recorded operations of Nature, under the influence, and with the support of the common-place and usual medicines. By no means do I wish to express myself as if wise and learned physicians were to despair, as if they were to think out no better modes of treatment, and as if they were to throw away the hope of discovering nobler and more potent medicines for accelerating the cure of this disease. So far I am from this, that I do not despair of finding out, even myself, some such medicine, and some such *methodus medendi*.

41. The disease being removed, the patient must be freely purged, since the number of diseases that may occur as the *sequelæ* of autumnal intermittents, where purging has been omitted, is beyond belief. I wonder that practitioners are so

[1] The following passage stands in the editions of 1666 and 1668.—[G.] "We must remember that, in the earlier stages of these diseases (especially in those of tertians), it sometimes happens that, with young and robust subjects, the effervescence runs to such a length, as to make it safer to meet the coming storm than to leave all to Nature. This is best done by prescribing an emetic on the days of intermission, —emetics being particularly suitable to autumnal disorders in general, and admirably ensuring us against those symptoms that, in their full vigour, they are most liable to; as soon, however, as this has been done, all the rest must be left to Nature. I am slow to believe that the violence and severity of the accessions of effervescence, which usher in the first fits of a tertian ague, are referable to any particular form of malignity, rather than to the strength and vigour of the disease itself. Each fit is the equivalent and miniature of a continued fever. Hence it attacks the patient with a fiercer onslaught than continued fever, until such time as the recurrence of one or more paroxysms shall have taken off the edge of its severity. Be this as it may, it sometimes happens that, through the violence of this same effervescence, an autumnal tertian (especially in young subjects) may get through the work of depuration before its time; and so, after a few fits, wholly disappear. Here Nature precipitates her work. A quartan, however, runs its course more slowly, except in second attacks. In this case, in spite of the recurrence of a few fits, the physician, who is aware of the fact, may confidently predict the sudden disappearance of the disease. This is worth knowing."

little on their guard against this. I wonder, too, that they are so rarely told of it. Whenever I see either an autumnal tertian or an autumnal quartan attack a man advanced in years, after purging has been omitted, I can boldly prophesy that some dangerous disease will succeed, however little he may have dreamed of such, and however much he may have considered himself perfectly cured.

42. Nevertheless, we must be careful not to purge before the disease is wholly expelled. It is true, indeed, that by so doing, the natural parts may appear to have been relieved of the foul humours that the fever has heaped upon them. Nevertheless, fresh matter is introduced, and they gradually increase. The fever supplies it; the action of the cathartics and the agitation of the humours having recalled the fever. Hence, all that we have done by our purging, is to render the disease more obstinate; daily examples tell us this. In deference to the vulgar theory, that a melancholy humour is the source and origin of the disease, and that in the removal of obstructions, and in the evacuation of this same humour, consists the chances of cure, patients are harassed during the decline of their complaint with repeated and punishing purges. Now be the humours that are thus worked out and eliminated what they may, it is certain that their effect upon the fever is to make it root itself more deeply, and hold its ground more resolutely than if it had never been meddled with.

43. For this reason, it is, with me, a matter of conscience ever to prescribe a purge before each and all of those slight alterations, which are discernible upon the days when the fits used to come, as well as when every sign of the fits themselves has wholly disappeared; and then I wait a month. At the end of which time, I prescribe some common lenitive draught, and order it to be repeated once a week for the next two or three months. To this I add an anodyne at bedtime, to be taken after each purgative, when its action is over. By this I remove the opportunities for a fresh accession of the fits, occasions for which arise out of tumult and commotion of even the mildest cathartics.

44. I allow, therefore, full time between the purges, in order that the patient may be ensured against a relapse; an

occurrence easily brought on by too frequent and too repeated an agitation of the blood and humours. When this danger, however, is over, the following apozem may frequently be used :—

℞ Monk's rhubarb, ℥ij;
Asparagus root,
Butcher's broom root,
Parsley root,
Root of polypody of the oak, āā ℥j;
Middle bark of the ash,
Middle bark of the tamarisk, āā ℥ss;
Ceterach leaves,
Maidenhair, a handful of each;
Cleansed senna, ℥iss (moisten this with three ounces of white wine);
Dodder of the thyme,
Agaric lozenges, āā ʒij;
Fennel seeds, ℈iv.
Boil in spring water to half a pint. Towards the end add three ounces of orange juice; strain, and dissolve in the mixture.
Syrup of succory with rhubarb,
Sovereign syrup for melancholy, āā ℥iss.
Make into an apozem; of which half a pint is to be taken every morning for three days. Repeat the same as often as required.

45. And now that I may at length enumerate the symptoms which accompany the decline of intermittents,[1] I must remark that very few belong to the spring agues, as compared with the autumnal, both because these former are not so lasting, and because their essence is more earthy and less malignant.

46. The first place amongst these symptoms must be given to dropsy. The legs swell first, then the belly. This arises from the state of the blood. The disease has lasted long; the fermentations that it engenders have been frequent; the animal spirits are squandered away, as it were, by handfuls; the blood misses them, and being exceedingly stinted in their supply, is unable to assimilate the juices of the *ingesta*. Of these the crude and undigested mass is at length deposited in

[1] In the editions of 1666 and 1668, instead of pp. 45, 46, we find the following.—[G.] "We must, however, carefully bear in mind that by having recourse to purgatives too soon after the cessation of the paroxysms, we run the risk of their returning. This arises from the disturbance that even a slight evacuation makes in the humours."

the legs. These become distended; they can hold no more; the deposit then goes to the belly, and true dropsy is the result. Old men suffer most from this. Young ones escape this *catalogue of ills*, unless, indeed, they have been repeatedly purged during the decline of the fever. This brings it on where it was never meant.

47. Now dropsy that supervenes on the aforesaid causes is easily cured by aperients and cathartics, provided always that it be of recent standing. It gives me no concern when I hear of it proceeding from these causes; I expect a favorable upshot. I have cured patients with the above-mentioned apozem alone, and that thoroughly, and without the admixture of any dropsical remedies at all.

On the other hand, I have observed, that to attempt the cure of a dropsy, by means of purgatives, whilst the fever lasts, is labour in vain. The dropsy will stay as it was, and the fever will take deeper root. We must wait till the fever is banished, and then we may undertake the business successfully.

48. But if the dropsy be so very distressing, and so very serious that its cure cannot be put off until the recess of the fever permit the use of cathartics, it must be attacked with the vinous infusions of horseradish, wormwood tops, lesser centaury, juniper berries, and broom ashes. These not only resist the symptoms and restore the blood, but also help Nature at the right time, just as she is about to triumph over the disease.

49. Infants, after autumnal fevers, whether continued or intermittent, occasionally become hectic. Their bellies are blown out and swell. They become indurated; very often cough, and the signs of consumption arise, and resemble rickets. These I treat in the following manner: I prescribe the cathartic draught that I recommend during the decline of continued fevers.[1] Of this the infant must take one or two spoonfuls (more or less according to his age) every morning for nine days, omitting a day or two if necessary. The purging should be so regulated and controlled, by increasing or diminishing the dose, that the number of stools must not exceed five or six in a single day. When the purging is over, the whole belly

[1] Chap. IV.--[G.]

is to be rubbed with an opening liniment for some days. The following is what I use:

℞ Oil of lilies,
Oil of tamarisks, ää ℥ij;
Juice of bryony root,
Juice of smallage root, ää ℥j.
Boil until the juices are gone. Add
Ointment of marsh-mallows,
Fresh butter, ää ℥j;
Gum ammoniac dissolved in vinegar, ℥ss;
Beeswax, q. s.
Make a liniment.

Many infants have thus been cured by me of even true rickets.

But, as I have said already, we must take particular care not to attempt purging before the complete departure of the fever, because, although a portion of the humours may reasonably appear to have been passed over to the natural parts, and by that means evacuated, there will still be a supply of new peccant matter to the fever, which will not only render the purging ineffectual, but, for the reasons given above, will make the disease itself more protracted.

50. It is worth observing, that when these autumnal agues have for a long time afflicted children, there is no hope of dispelling them until the abdominal region, especially in the neighbourhood of the spleen, has begun to swell and harden, whilst in proportion as this symptom increases the ague goes off. Perhaps there is no better symptom whereon we may form a favorable prognosis as to speedy termination of the disease, than the one in question. Observe it watchfully. The same holds good with the swellings in the legs of adults.

51. In those years where the atmospheric constitution has an epidemic determination towards the development of autumnal intermittents, this swelling of the belly, which occurs in children who have had agues, feels, if you touch it with your finger, as if the viscera contained some hardened scirrhous matter. In other years, although arising from a similar cause, it feels merely like the tension of the hypochondres from flatus. Hence, except in those years where autumnal intermittents are paramount, true rickets rarely occur. This is worth noting.

52. Pain and inflammation of the tonsils, following fevers, either continued or intermittent, accompanied with distress and difficulty of swallowing, and followed by hoarseness, sinking under the eyes, and the *facies Hippocratica*, are certain signs of imminent death. They cut off all hope of recovery. I have observed that the protraction of the fever, and excessive evacuations on the part of the patient, already prostrated by the disease, have generally lent a hand towards the production of this fatal symptom.

53. There are many accidents which are wont to follow these diseases, either from purging having been neglected, or from its having been resorted to at the wrong time. I will waive mention of them, however, for the present, the principles of the cure being the same for all. It consists in the repurgation of the sediment deposited by the previous effervescence, which, by its retention, supplies the pabulum to these evils. One sort of symptom, however, and that an important one, it may be proper to mention in this place; it yields neither to purges nor evacuants of any kind, least of all to bloodletting. In defiance of these, it even takes strength from their administration. It is a form of mania[1] peculiar, and *sui generis*. It occasionally follows long agues, especially if they be quartan; it stands beyond the reach of all the usual remedies. From the exhibition of strong evacuants, it degenerates into fatuity, and ends only with the life of the patient.

54. I have often wondered that no notice has been taken by authors of this symptom, as I have observed it not unfrequently. The other forms of madness are mostly cured by means of copious evacuations, bloodletting, and catharsis. This can bear none of them. Even when the patient is recovering, and on the very threshold of health, the single injection of an enema of sugar and milk will bring it on afresh; whilst to fight against it by means of reiterated purges and

[1] In the editions of 1666 and 1668 we find, "perhaps upon due consideration we shall determine that there are several kinds of mania," &c. And a little below, Sydenham writes thus: "Concerning the treatment, I shall at present say nothing, although many know that I have dealt with it successfully; nevertheless, I do not feel that my attention has been proportionate to the importance of the disease. Hence I cannot, with proper confidence, publish any doctrines concerning its cure."

venesections, is to mitigate, indeed, the violence of the disease, but to reduce the patient to a state of incurable fatuity. At this no one will wonder who considers that, whilst one form of madness arises from an exalted and over-vivid *crasis* of the blood, this is produced by its debility, and (if I may use the term) its *vapidity*. The fever has introduced a protracted fermentation, and the protracted fermentation has disabled the spirits from the performance of their animal functions.

55. This symptom I manage in the following manner: I give the patient a full dose of a generous cordial three times a day, e. g. Venice treacle, egg electuary, the Countess's powder, Raleigh's powder, &c., out of epidemic water or treacle water. Other cordials may also be given, according to other formulæ. The patient's strength must be kept up by moderate analeptic diet, and somewhat generous drink. He must not go out of doors. He must keep much in bed. The bowels, under this regimen, will be somewhat confined. This and the use of the heating medicines may raise fears of a fever. These are vain. The animal spirits, almost exhausted by the previous disease, are unable to kindle one. After a few weeks he will gradually improve. The cordials may then be omitted for a few days. The analeptic diet, however, must regularly be adhered to; and, after a short intermission, the use of the cordials also. He must persist in this until he enjoys his original health.

56. The aforesaid treatment has cured forms of mania which have originated otherwise than in ague, viz. in cold and infirm temperaments. Last year I was called to Salisbury to consult with my learned and dear friend Dr. Thomas upon the case of a lady whose faculties were seriously impaired. Although she was pregnant, I used the above-mentioned remedies, and she recovered altogether.

57. However, the common sort of madness which befals healthy men, and which is not preceded by any fever, is wholly of a different breed from the present; and, in respect to the use of evacuants, is to be treated upon wholly different principles. Nevertheless, even here, it is not right to omit those remedies which are restorative to the brain and animal spirits. The cure of this has no place here. I am willing,

however, to append a notice of it to the preceding description, simply for the sake of guarding against those errors, that the likeness between the two diseases may lead to.

58. With young subjects, and with those of a sanguine habit, eight or nine ounces of blood must be taken twice or thrice from the arm, with three days between each bleeding. After this, blood must be drawn once from the jugulars. Beyond this, the use of the lancet will promote idiocy rather than recovery. The patient must then proceed to a course of the *pil. ex duobus*. Of this he must take half a drachm or two scruples, according to its effects, on a stated day, once a week. Thus, if he begins with them on a Monday, he must repeat them that day week exactly; he must not take them oftener; and he must go on week after week for a long time until he has perfectly recovered. By this method, the humours, that in this disease would invade the citadel of the brain, are gradually drawn off towards the lower parts, a fresh bias being given to them.

59. On the days when the patient does not purge, let him take either the following electuary or some other medicine of similar power; and let him persist in doing so during the whole course of the complaint:

℞ Conserve of monk's rhubarb,
Conserve of rosemary,
Venice treacle, āā ℥j;
Conserve of orange-peel,
Candied angelica,
Candied nutmeg, āā ℥ss;
Syrup of cloves, q. s.

Make into an electuary; of which a portion, the size of nutmeg, must be taken twice a day. Drink upon it a small draught of canary wine, with cowslip flowers infused cold.

60. The continued fever and the intermittents which I have just described were nearly the only prominent epidemics under the constitution of 1661, 1662, 1663, 1664. At what earlier period they first attained their predominance I am unable to say. I only know that from 1664 to 1667 they very rarely appeared in London.

61. I meant to have written upon the smallpox of these

years, respect being had to the character that it took from their peculiar constitution, inasmuch as (according to a remark made above) this disease undoubtedly varies with the variations of the atmospheric constitutions. I omit it, however, for the following reason: at the time in question, I had not sufficiently attended to it. I may say, however, that it had this peculiarity—during the whole four years, although it set in with exceeding violence at the beginning of May, it declined as the autumnal diseases (continued and intermittent fevers) supervened. The tops of the pustules were pitted with depressions about the size of a small pin's head. In the discrete forms of the disease, the patient was in greatest danger on the eighth day. At this period such sweat or moisture as had hitherto appeared on the surface was checked suddenly. The skin became dry. No cordials would recall the perspiration. The sufferer was seized with delirium and great anxiety. There was much pain and distress. His urine was voided frequently, but in small quantities. Within a few hours he died. *Quantâ de spe decidit!*

SECTION II.

CHAPTER I.

THE EPIDEMIC CONSTITUTION OF THE YEARS 1665 AND 1666. IN LONDON.

1. After an extremely cold winter, and after a dry frost that lasted without intermission until spring, and which then (i. e. at the end of March) unexpectedly broke up, in the early part of the year 1665, peripneumonies, pleurisies, quinsies, and all such inflammatory diseases, suddenly caused a great mortality. At the same time an epidemic (continued fever) appeared, which was wholly different in character from the continued fevers that prevailed during the preceding constitution. Of these, scarcely any were in the habit of setting in at such a time of the year.

The pain of the head was more intense than in the previous epidemic: the vomiting was even severer. The diarrhœa, that in the former cases, as stated above, could be guarded against by emetics, was now aggravated by them; yet the vomiting continued. As in the preceding fevers, the external parts were dry. After bleeding (more than after aught else), the patient could sweat; and when he could do so, the symptoms abated. This would take place during all stages of the disease; whereas, in the former ones, it was not safe to attempt it before the thirteenth or fourteenth day, and then it would not easily succeed. The colour of the blood was often that of pleurisy and rheumatism, but less coated with a white jelly.

2. At first these were the diagnostic phenomena of the disease; but as the year advanced, the plague itself broke out, with its full train of pathognomonic symptoms, e. g. carbuncles, buboes, &c. The plague increased day by day, and about the time of the autumnal equinox reached its height.

At this period it destroyed eight thousand men (more or less) in the space of a single week, although two thirds of the citizens had retired into the country for fear of contagion. From this time forward, it began to sound a retreat, and when the cold of winter came, it all but disappeared. Only here and there it struck isolated patients. This, however, it did throughout the winter and during the early part of the following spring. When this had set in it was wholly gone. The fever, however, remained: and lasted till the end of the next year, and even till the spring of 1667. It was, however, less epidemic. Upon this I subjoin my remarks.

CHAPTER II.

THE PESTILENTIAL FEVER, AND THE PLAGUE OF THE YEARS 1665 AND 1666.

1. In a previous passage I have incidentally remarked that several sorts of fever are arranged under the class of malignant, the appalling severity of their symptoms being the ground for this classification. Frequently, however, it is less from the character of the morbific virus than from the effects of unskilful treatment that such severity has occurred. We often attend too little to the intentions of Nature in the cure of disease, and set up on insufficient grounds some different method of cure. From this arises a perturbation of the whole bodily economy, and, this being upset, a melancholy state of things, worse than that of the original disease, is induced. More than this, the disease itself, changing its character, is accompanied with a multitude of anomalous accidents. It is like a monarch with a body-guard of foreigners. Fever, however, of the true malignant character, is anything but an every-day disease; and from those other forms of fever which are called malignant only on the strength of the severity of their symptoms, it differs both in kind and character. Its true affinities are with plague, nor more nor less; and from the true plague it is distinguished only by its difference in degree. For

this reason I shall embrace, in one and the same chapter, the origin and treatment of these two diseases.

That some obscure atmospheric change, either in crasis or texture, is the cause and occasion of different maladies at different periods, can be a matter of doubt to no one who has observed that one and the same disease shall at one period sweep away an infinitude of human life, and establish itself as an epidemic, whilst at another, it shall cease after a short course, as if contented with the sacrifice of but a few lives. Concerning the smallpox, and concerning the plague, the special subject of the present chapter, this doctrine may be looked upon as established.

3. On the other hand, the kind and character of the atmospheric constitution in which these morbific influences are developed, are points upon which we must be content to plead ignorance. They are matters, like many others, upon which vain and arrogant philosophy speculates to no purpose. Be it what it may, for one reason at least, we may with the fullest propriety thank the mercy and goodness of the supreme God. He hath willed that the *constitutio* λοιμώδης of the atmosphere (or that state which introduces the most terrible and the most destructive of all the scourges of humanity, viz. the plague) shall occur at distant intervals, and less frequently than those which usher in the milder and less fatal diseases. Upon these grounds the plague visits Britain no oftener than once in thirty or forty years. As often, however, as it has done so, its attack has been one of more than average severity, and with its full complement of terrors. Such deaths from plague as sporadically occur during the few years following those of the great plague, and which gradually decrease and finally vanish altogether, are to be attributed to a partial persistence of the pestiferous disposition of the atmosphere, which has not yet undergone its full change from foul to healthy. Deaths in years like these are only the gleanings of the harvest that has gone before; and it is from traces of former infection that the fevers of the first year or two after great plagues take a pestilential character: of true plague, indeed, they want some of the characteristics. Notwithstanding this, they resemble it exceedingly in character and disposition, and, as shown below, demand a similar line of treatment.

4. Over and above, however, this constitution of the atmosphere and these *general* influences, there must be an additional determination in the form of a susception of the *miasma*. This means the admission of the morbid principle from some pestiferous body, either immediately and by close contact, or mediately from the transmission of a *fomes*. When these conditions coincide with the disposition of the atmosphere which we described, a small spark gives origin to a fearful conflagration. Death presses upon death; and, partly from the exhalations of those who have sickened, and partly from the corpses of those who have died, disease and contagion are propagated through the whole atmosphere of the affected area. And now both the existence of *fomites* and the presence of the stricken have ceased to be the conditions of its propagation. The simple atmosphere drawn in as we breathe is, in itself and of itself, sufficient to destroy; and it destroys even those who have been removed with all care from the infected, provided only, that their bodies be impregnated with the humours adapted to the receipt of the influence.

5. Although this disease, when it exists only sporadically, attacks the few that it lays hold of without respect to the time or seasons of the year (the contagion being handed on as it were from patient to patient), this is not the case where it is epidemic and constitutional in the atmosphere. *Then* it begins when spring passes into summer; a period of the year pre-eminently favorable and accommodated to the production of those ailments whose essence more especially consists in the inflammation and φλογωσις of the humours. This will be seen in § 16. Like everything else, too, in Nature, it has its proper periods of increase and decline; it takes birth at the period given above, and it rises towards maturity as the year advances: with the decline of the year it declines also. Finally, the frosts of winter transform the atmosphere into a state unpropitious to its existence.

6. Now, if the changes and the seasons of the year had nothing to do with the character of the disease in question,—if the pestilential *virus*, unmodified by atmospheric variations, were transmitted from man to man by a continuous series of propagations, it would of necessity follow that from the very moment that the plague had found its way into some popu-

lous city, deaths would succeed deaths in one continuous and indefinite series, until at last no one would be left upon whom the murderous *miasma* might fasten itself. But it has been observed that the contrary to this has often taken place. The number of dead that in the single month of September amounted to some thousands, by the end of November diminished, and was reduced to almost nothing.

I am far from denying that a statement made by several authors, as to the plague having originated during periods of the year other than that mentioned above, may be possible. The fact, however, is a rare one, and when it takes place, the ravages of the disease are less.

7. On the other hand, I have grave suspicions that the mere atmospheric constitution, however much λοιμώδης, is by no means sufficient, in and of itself, to originate plague. Either the disease itself must continue to survive in some secret quarter, or else, either from some *fomes*, or from the introduction from pestilential localities of an infected person, it must have become extended. And even in these cases it cannot become epidemic, except with the conditions of a favorable atmospheric diathesis. Except upon this principle, I cannot comprehend how, of two towns near each other, and under the same conditions of climate, the one shall be grievously afflicted with the plague, the other be wholly free, and that by merely cutting off all communication between itself and the place infected. Yet this was done not many years ago, through the care and foresight of the Grand Duke Ferdinand II, who effectually stopped on the borders of Tuscany a plague that devastated nearly the whole of the remaining parts of Italy.

8. The first attack is almost invariably ushered in by chills and rigors (such being also the accession of intermittent fevers) which are followed by violent vomiting, by pain in the region of the stomach, like that of the pressure of a screw, burning fever, and its usual crowd of concurrent symptoms. These affect the patient without intermission, until either death itself, or else the favorable breaking out of buboes or of parotid abscesses. Hereby the morbific matter becomes eliminated, and relieves them from the appalling crisis. Occasionally it happens

that the disease lights upon the patient without any premonitory signs of fever whatsoever, so that, even whilst engaged in his common business, a man may be suddenly struck down,—an eruption of crimson blotches being the only forerunner of his quickly-coming death. It is important, however, to remark that death thus sudden rarely happens, except during the beginning of epidemics of more than ordinary severity. In years where the disease has been sporadic, and during its remissions and decline, they have never been observed. It happens also that, at times, tumours may break out, without either fever or any other important symptom as their precursors; although I suspect, for my own part, that chills or shivers, in some slight degree or other, and more or less perceptible, invariably precede. Those to whom this happens may walk about in public as usual, and attend to the common duties of life like healthy men, taking no thought of regimen.

9. Now the *essence* of this disease I will not take upon myself to define with precision; and a wise man may perhaps think that he who questions me as to what constitutes this or that species of sickness, puts as unfair a question to me as I should put to him, if (I speak in the way of illustration) I wanted to know the essence of the horse as an animal, or of the betony as a plant. It is in accordance with immutable laws, and by a scheme known to herself only, that Parent Nature accomplishes the generations of all things; and many things as she may bring forward from the abyss of cause into the open daylight of effect, it is in the deepest darkness that she veils their essences, their constituent differentiæ, their quiddities; and hence it is, that each species of malady, even as each species of animal, and each species of vegetable, hath taken as its portion its own proper affections,—proper, permanent, unequivocal, derivative from its essence. Meanwhile, the question as to how we can cure diseases, whilst we know nothing of their causes, gives us no trouble. It is not by the knowledge of causes, but by that of methods at once suitable and approved by experience, that the cure of the majority of diseases is accomplished.

10. To return, however, to our business, all that we can do, in our present ignorance, is to deduce the origin of all

similar diseases from some fault of either the primary or the secondary qualities. Hence, I am almost of the opinion that plague is a peculiar fever *sui generis*, originating in the inflammation of the more spirituous particles of the blood; inasmuch as it is these that, from the subtilty of their nature and their tenuity, seem most appropriate and adequate. Now, if by means of this exceeding subtilty (a process which we may observe during the commencement and development of an epidemic constitution) it suddenly and unexpectedly dissipates all the natural heat, and thereby kills the patient, the bodies of those whom its violence has so suddenly destroyed are covered all over and marked with crimson blotches; the fibres of the blood being torn asunder by the stress of the intestine struggle, and the structure of its tissues being wholly dissolved.

11. These sad events are brought about without any febrile ebullition of the blood, or any premonitory feelings of disorder. The subtilty of the morbific matter is that of flame. Where it is less subtle this rarely occurs. It then attacks life with blunter weapons. A rough example may illustrate the difference. Place a needle, or some sharp-pointed instrument, under a cushion, press it; the cushion is not raised, but pierced. The converse would take place with a blunt instrument.

12. Deaths, however, thus sudden rarely occur; when they do, it is, as stated above, at the beginning or during the development of a plague. Generally, as with other fevers, rigors and shivers usher it in. Heat succeeds; this increases until the inflamed particles of blood, under the provident direction of Nature, are remanded to their emunctories; there, like common abscesses, they become pus. A lower degree of inflammation produces the so-called pestilential fever. This often appears at the end of a pestilential constitution, and occasionally, for a year or two afterwards, until that particular species of fever has wholly disappeared.

13. In my own mind, I can find in the disease which is called in Latin the *ignis sacer* a plain picture of the plague. The best physicians describe it as "a continued fever, originating from a corruption and inflammation of the thinner parts of the blood. To rid herself of this, Nature drives it to some external part of the body. Here arises a tumour, or rather (since a notable swelling is often not apparent,) a red, broad,

irregular blotch, which they call *the rose*."[1] Now this fever, after harassing the patient two days, goes off. Forthwith there sets in a glandular pain, either under the armpits, or on the groin, just as in the plague.

14. "Generally, this complaint sets in like plague, that is, with shivers and a subsequent febrile heat, so that those who are attacked for the first time, fancy that it is the plague that has taken them, until either in the legs, or somewhere else, the true character of the disease show itself."[2] To these extracts it may be added, that many authors attribute to the disease in question a malignant character, and look for its cure in the exhibition of sudorifics and alexipharmics. A flame like this goes out of its own accord. It determines the ebullition, by the effects of which those particles of blood that we may call singed, and, as it were, scorched, are quickly eliminated, and having effected thus much, it does no further mischief.

15. The flame, however, that we now treat of, is not merely *sacred*, it is *divine*; inasmuch as its strength lies in an excessive tenuity of substance, and as its nature is adapted to ransack the most secret recesses of our frame, even as the lightning does. The spirits of the blood are instantaneously dispelled; its tissue is dissolved; Nature is overwhelmed by a headlong attack; the febrile ebullition, which is her usual instrument for the elimination of whatever is deleterious to the blood, she is unable to excite.

16. Now, if any one quarrels with me on the doctrine of this disease having its origin in inflammation, he should consider that the presence of fever, as well as many other points, support my view. The colour of the blood which is drawn has the character of that of pleurisy and rheumatism. The burning hue of the anthraces is that of the actual cautery. The buboes themselves become inflamed as regularly and in the

[1] "Est enim morbus hic febris continua a sanguinis parte tenuiore corruptâ ac inflammatâ originem ducens; quâ ut Natura se liberet, eam in corporis aliquam partem externam expellit, in quâ tumor, aut potius (cum tumor adeo notabilis sæpe non appareat) macula rubra, lata, dispersa, quam *rosam* appellant, oritur."

[2] "Et fere invadit hoc malum ut pestilentia, cum horrore et insequenti calore febrili; ita ut qui ipsum ante non sunt passi, existiment lue pestiferâ se corripi; donec tandem in crure aut alio loco sese affectus prodat."—Sennert., De Febr., ii, 16; De Febr. Sympt. Contin.—Sennerti Opera, tom. vi, pp. 407-8. [G.]

same way as tumours of any other kind do, and, just like any other inflammations, terminate for the most part in abscesses.

Besides this, the season of the year when epidemic plague, for the most part originates, adds strength to the argument that I have adopted. It is just that time, viz. the mid-line between spring and summer, when pleurisies, quinsies, and other ailments arising from inflammation of the blood, are wont to wax rife. These I never found commoner than during the few weeks that immediately preceded the late plague of London. It is also remarkable that this selfsame year, so deadly with the funerals of thousands, was in other respects most mild and healthy; so that all who kept clear of the plague never were better than then; whilst those who had recovered from it, were, for the remainder of their lives, less liable than other people to cachexies and other affections, the usual *sequelæ* derived from the mischief of previous disease. To this it may be added that, let the size of the carbuncles and imposthumes have been what it might, the moment that the inflamed particles had been eliminated and discharged, they were cured offhand by surgical means, and those of a simple sort.

17. Some one now may perhaps put the following question: if plague be inflammatory, how is it that medicines of a heating character, as is the case with the majority of the alexipharmics, are used with such great advantage both in the therapeutics and the prophylaxis of the complaint? To this I reply, that it is only as an accident that they do good, i. e. by their good effects as diaphoretics; whereby the particles of inflamed blood are dispersed and eliminated. If (as is often the case) the exhibition of these be ineffectual in promoting perspiration, their mischievousness is soon proclaimed. The ardour of the blood is aggravated by the superadded heat.

To speak one word upon the prophylaxis of plague. I am well aware that the use of hot antidotes is much vaunted. What good they can do still remains to be proved. Certain it is, that the free use of wine, and other strong preservatives, taken at stated hours, and in the way of regimen, has brought the disease upon many persons who, in all probability, would have remained safe and sound otherwise.

18. In respect to the therapeutics of the fevers in question, I may possibly lay myself open to the charge of arrogance and

temerity in venturing upon a dissertation upon this subject; inasmuch as, during the inroads of the late plague, I was, during the greater part of the time, many miles distant from London, and, as such, unfurnished with a multiplicity of cases. Those physicians, however, of far greater skill than myself, who, throughout all the stages of that scourging calamity, with danger all around them, and with the thousand shapes of deaths before their eyes, had heart and soul to stand at their posts, have hitherto shown no intention of laying before the world those observations upon the nature of this disease which their greater practice may have supplied them with. Hence it is that I crave of good men a mild judgment upon my undertaking, having laid before the world my own notions concerning a very deadly disease, as a superstructure to a limited number of my own individual observations.

19. Our first attention must be paid to the indications of treatment. These follow one of two general lines. Either we must accurately follow the way taken by Nature in the annihilation of the disease, and be contented with lending subsidiary aids, or we must substitute for it a method of our own from our own resources, safer than that of Nature's, and different from it, putting no faith in the former mode of warfare against our intestine enemy. This is the alternative; unless, indeed, it be objected that good can be done by means of pestifuges and antidotes, of which we may find our fill in the hands of the empirics. And even with these, it is a matter of great doubt whether the good they do be not rather referable to their known power of acting as strong sudorifics (so opening a valve for the matter of the disease), than to any occult power against the malign influences of the plague with which Nature can be supposed to have invested them.

20. Concerning all other alexipharmics, as well as concerning these, we may fairly doubt whether they benefit the patient through any specific virtue rather than by the simple stimulus to evacuations. Those—I am speaking for the sake of illustration only—who argue that in the venereal disease either mercury or sarsaparilla may be brought forward as examples of alexipharmics against that particular poison, must refer me to cures which have been effected by the first without either salivation or secretion, or by the second without sweating; and

this I, for my part, believe to be no easy matter. To me it seems most likely that the proper remedy of plague, and the peculiar alexipharmic to its mischief, is still hidden in the bosom of Nature, and that it is only by methods more or less mechanical that the disease is to be removed.

21. We come now to the fuller consideration of the first of our two alternatives, viz. our efforts to second Nature in the elimination of the morbific matter in her own way, and after her own fashion. The first point to notice is this—that in the true plague, as long as Nature neither swerves of her own accord nor is warped by influences from without, she does her work through the emunctories: in these an abscess breaks, and the matter finds an outlet. In fever, however, of the sort called pestilential, the same effect is brought about by means of a general diaphoresis over the whole surface of the body. From this difference we infer, that for the two lines of conduct indicated by Nature in the two diseases we must institute two principles of cure. For instance, he who, in a case of true plague, would attack the *virus* with sudorifics, takes a line in opposition to that of Nature; since *she* does her work with abscesses. On the other hand, to attempt the expulsion of the matter of pestilential fever, and to attempt it otherwise than by means of diaphoresis—this, again, is the setting up of processes antagonistic to her guidance and inclination.

22. Whether or not, in true plague, there be any fit and certain sort of remedy whereby the natural ejection of the morbific matter, in other words, the formation of abscesses, may be promoted, is a moot point. Some consider that strengthening diet and the administration of cordials tend that way. This, however, I much doubt. The patient is already more hot than he ought to be, and these make him hotter still. That sweating is wholly useless, I am thoroughly convinced; although I do not deny that after copious perspirations continued for three or four hours, and then checked, I have observed the appearance of tumours. These, however, I by no means refer to the sweating. During its continuance I have never seen the signs of an eruption. It comes on at its termination, and that as an accident. The diaphoresis has partially lightened the burden that oppressed Nature, and the body has generally increased in heat, from the cordials that

were given to promote it. I invoke the fatal catastrophes of those who have thus been treated, as evidence to the fallaciousness and uncertainty of this method of eliminating the peccant matter, viz. by abscesses promoted by diaphoresis. I speak within compass. Not one in three has resisted both the malady and the medicine. On the contrary, many, with whom the tumours have broken out in a laudable manner, even whilst they have been engaged in their usual pursuits, have rapidly recovered their health; nothing perceptible in the way of a lesion having occurred to any organ whatsoever, natural, vital, or animal. The only exceptions to this have been made by those few who, through their own evil genius, have fallen in with some quack, and, at his recommendation, although otherwise sound both in mind and body, have taken to their beds and sweated. From that very moment they have grown worse, and at last, their ailment having become desperate, have sealed by their deaths the evidence to the ill-omened mischief of the advice.

23. That the prognosis, however, in this disease, even where tumours have appeared, is slippery and hazardous—*periculosæ plenum opus aleæ*—may be shown from the fact that buboes have at first swollen out in a laudable manner, have been accompanied with a remission of the symptoms, and have afterwards suddenly disappeared. In the place of these, purple blotches succeed. There are no surer signs of death than these. The cause of this retrocession may fairly be laid at the doors of the excessive diaphoresis, brought on with the view of promoting the eruption. It is this that acts as a derivative to those elements which should fill out and support the mass of tumour. Of these they distract a great portion towards other parts of the body, as well as dissipate it externally.

24. Be this, however, as it may, it is an undoubted truth that whilst it has pleased the mercy of Almighty God to attach to other diseases some sure process for the elimination of the morbific matter, there are for this (the scourge for the enormity of our sins) none but uncertain and equivocal ones; and this, rather than its vaunted malignity, may be the true cause and reason for the desperate destructiveness of the disease. Even in gout, and the diseases that are but slightly suspected of malignity, the striking-in of the morbific matter is fatal.

From all this it clearly follows, that the physician who, in the cure of other diseases is bound carefully and closely to follow the path and conduct of Nature, must here renounce her guidance. This is an axiom of which very few have hitherto seen the full truth; and hence the number of those whom the plague has conducted to the grave has been largely increased.

25. We have, then, here a disease, in the extermination whereof it is unsafe to follow the path of Nature. The next question, therefore, that arises is the process by which we may satisfy what we call the second intention, and this is nothing less than a new and independent method, different from that of Nature. Of this there are two forms, bloodletting and diaphoresis.

In respect to bloodletting (bleeding in plague), I am well aware that it is generally held in horror. I care, however, but little for the prejudices of the vulgar, and therefore will pause to weigh, with due and proper candour, the arguments on each side of the question.

26. And, first, I appeal to all those physicians who remained in London during the ravages of the late plague, and ask if any one of them ever observed that large bleedings, often repeated before the protuberance of any tumour, was ever fatal to patients with the plague? That the loss of even a little blood after the tumour has begun to appear should always be prejudicial, is no wonder at all; since a moderate bloodletting just serves to take the administration out of the hands of Nature, who is doing her best towards the development of the tumour, without the substitution of any other form of evacuation sufficiently efficacious against the morbific matter; whilst bleeding, after the tumour has appeared, as it draws from the circumference to the centre, induces a motion quite contrary to that of Nature: *she* draws from the centre to the circumference. Nevertheless, nothing is more common than to find the mischiefs which have arisen from this perverse form of phlebotomy twisted by the opposite side into the shape of a strong argument against the use of bleeding in plague generally. This you may see in Diemerbroek,[1] and other writers of observations. For my own part, I am not prepared to

[1] De Peste, iii, 3.—[G.]

agree in their arguments, until I am informed as to their answer to the questions indicated above.

27. In truth, many authors (and those good ones) have all along perceived that bleeding is proper in the plague. The chief of these are, Ludovicus Mercatus, Johannes Costæus, Nicolaus Massa, Ludovicus Septalius, Trincavellius, Forestus, Mercurialis, Altomarus, Paschalius, Andernachus, Pereda, Zacutus Lusitanus, Fonseca, and others. The only writer, however, who, to my knowledge, has made bleeding, to the extent that I require, his sheet-anchor in this disease, is Leonardus Botallus, one of the most famous physicians of the last century. Lest I be thought singular in my practice, I will quote his very words:

28. "Ego ut uno verbo dicam, nullam pestem esse puto, cui hæc non possit esse salutaris supra omnia remedia, modo opportune et quantitate convenienti usurpata sit, ratus eam aliquando inutilem inventam fuisse propterea quod aut tardius aut parcius quam opus esset, aut quod utroque modo circa eam usurpandam peccatum sit." And shortly after he adds: "At in tantâ timiditate et parcâ detractione qui fieri potest ut quis recte possit judicare quantum ea in pestilenti morbo prodesse valeat aut obesse? Non enim morbus, pro cujus curatione requirebatur detractio librarum quatuor sanguinis, in quo una tantum detrahitur, si hominem interficiat, ideo interficit, quia sanguis est missus, sed quia non justo modo missus est, nec forte etiam opportune. Verum nebulones nequissimi et ignavissimi in id semper culpam convertere satagunt, non quod nocuit, sed quod per nefas a cunctis vituperari exoptant; aut si id nequitiâ non faciant, ignorantiâ tamen pravæ dispositionis efficiunt, utrâque certe perniciosa, sed illâ magis."

With the view of proving all this from experience, he subjoins, a little further on: "His observatis nemo rationis capax jure in his morbis vituperare missionem sanguinis potest, sed mirifice et tanquam divinum auxilium commendare extollere et confidenter usurpare, quod ipse profecto ab annis quindecim facio. Ideo in morbis pestilentibus in obsidione Rupellarum, et montibus Hannoniæ abhinc quadriennium, et Parisiis toto hoc biennio, et Cameraci anno proximo acto, in omnibus meis ægrotis, (qui innumeri fuerunt) nullam præsentius ac salutarius reperi ipsâ largâ et tempestivâ sanguinis missione." He pro-

ceeds, from these statements, to instance some of his cures. These, however, I omit, for the sake of brevity. I will relate, however, in their place, a fact that occurred in our own island, a few years ago; it is one of great rarity and not foreign to my subject.

29. Amongst the other calamities of the civil war which afflicted our unhappy country, the plague made, in many places, its ravages. Amongst others, it attacked Dunster, in the county of Somerset. It had been introduced from without; some of the common soldiers it killed at once; plague-spots having suddenly broken out. Others also it attacked. There was a certain surgeon who had returned from a long travel in foreign parts. He was then serving as a common soldier; he earnestly entreated the governor to let him do his best for the relief of his fellow-soldiers who were seized with this terrible disease; the governor gave him leave. He bled the patients straight off, the moment the disease seized them, and before any tumour appeared. He took an enormous quantity of blood, keeping on until they were unable to stand on their feet; they stood whilst they were bled: it was done in the open air. There were no vessels to catch or measure the blood; the soil served for basin. He sent them, after this, to lie down in their tents; he used no remedy beyond bleeding. He treated a great number in this manner; strange to say, not one died. I had this from a man of equal probity and truth; Mr. Francis Wyndham, captain in the army, and governor of the castle, being my informant. He is still alive, and I am sure that he will courteously confirm my statement to any one who doubts it. My own observations, so far as they are special and worthy of mention, and such as I had the good fortune to make, I will lay before the reader below. I shall there exhibit the little which I learned from experience and observation, during the ravages of the late London plague.

30. Now although I have not only weighed and considered the advantages of this practice in my own mind, but have also ascertained it by real cases and experience, I still consider that the dissipation of the ferment of the plague, by the way of diaphoresis, is, in many respects, preferable to its evacuation by the means of bloodletting. It is neither so debilitating to the patient, nor yet so hazardous to the physician. It has,

however, its difficulties; in the first place, it is often difficult to promote perspiration, especially when the patient is young, or of a hot temperament. With such subjects, the more you try to sweat them by drinks, and the more you load them with bedclothes, the more you expose them to the risk of a brain fever; or, worse still, after feeding yourself with a deluaive hope that you are bringing out a perspiration, you find that you bring out plague-spots instead.

31. For since it is in the more spirituous part of the mass of the blood that the germ of the disease lies, so that the agitation of the more viscid particles is less active in this than in other inflammations, it follows that those same subtler portions of blood, when over-excited by any new access of heat, must rush with violence upon the overstrained fibres of the blood, and altogether break down their tissue. It is from the dissolution of the fibres of the blood that I derive the origin of the plague-spots; just as from a sharp blow on any part of the muscular substance there is first a deep red efflorescence on the skin, and then, soon afterwards, a change to black or livid.

32. In cases were there is sufficient disposition to diaphoresis, it may be checked too soon, i. e. before the whole of the morbific matter is thoroughly dispersed. When such happens, the character of the buboes, which towards the end of the sweat had begun to come out well, changes for the worse. That portion of the matter which ought to raise them to their proper size is withdrawn, whereby they either strike in at once, or else fail in being developed into legitimate abscesses. This admits the deadly enemy within the walls. A commotion of the blood is excited; the commotion acts in the way described above, and throws off upon the surface the tokens of an imminent death, in the shape of ecthymata. The same striking-in of the eruption happens in smallpox, whenever the patient has been over-sweated during the first days of the disease.

33. In order, however, that it may more clearly appear how both these and other difficulties may be obviated, I will relate with great faithfulness my treatment and observations, beginning with the beginning of the late plague.

34. At the beginning of May, in the year 1665, I visited a

noble lady, about 21 years of age, and of a sanguine temperament. Over and above the burning fever which had attacked her but a little time before, obstinate vomitings and other febrile symptoms aggravated her distress. Having begun my treatment with venesection, I ordered an emetic on the following day. It was given to guard against diarrhœa; for I have stated in the beginning of this Treatise, that such supervenes during the decline of the fever, whenever the exhibition of an emetic, which was called for by the disposition to vomit, has been omitted. What I prescribed cleared the stomach well and sufficiently. The next morning, when I visited my patient, I found that she was purged. This gave me great uneasiness, as the experience of several years had taught me that it was unusual. I decided at once that the fever was not of the common sort, and the event verified my statement. I also saw that it required a fresh method of treatment, and one different from that which I have exhibited above, and which I had up to that time used so constantly, so continuously, and so successfully. On these grounds, I called in a physician of older standing than myself, and as we both agreed that her age, temperament, and the inordinate ebullition of her blood called for bloodletting, we bled her a second time. Besides this, moderately cool cordials were ordered; and, lastly, clysters were thrown up every other day. Towards the end of her illness, certain anomalous and unusual symptoms set in, such as are vulgarly accounted signs of *malignity*, and hereupon we ordered some of the stronger alexipharmics. Nothing, however, did good, and the patient died about the fourteenth day.

35. The unusual character of this fever perplexed my mind for some days: at last I recollected that, in the previous case, there had been, even after the second bleeding, exceeding heat; that the cheeks were red; that drops of blood issued from the nostrils a little before death; that the blood, when in the basins, and when cooled, was like the blood of pleurisy; that there was a slight cough; that there were obscure pains in the vital parts; that the time of the year was intermediate to the end of spring and the beginning of summer; that this period was not the season for continued fevers; and, finally, that it *was* the season for pleurisies: since continued fevers, about this

time of year, disperse of their own accord, and pass into either intermittents or pleurisies.

Upon the strength of all the circumstances I inferred that, although the fever in question was destitute of the pathognomonic signs of pleurisy, or even of pneumonia, it had, nevertheless, the signs of an inflammation lurking about the vital parts; and that though there was no pain in the side, nor yet any notable difficulty on breathing: in short, I came to the conclusion that I might treat the case by precisely the same method that I had often applied, with singular success, in pleurisy. This I did, and succeeded. Soon afterwards, I was called in to a man similarly suffering. I reiterated the bloodlettings, and by the treatment above mentioned (i. e. the treatment of pleurisy) completed the cure of my patient. Towards the end of the month in question, and during the first part of June, many who sought my advice were cured from the fever, which was now raging far and wide, by this treatment; from which time began the ravages of the dreadful plague of London, and so great were they, that within the space of seven days seven thousand persons died in London alone.

36. I will not definitely pronounce whether the name of *plague* be properly given to the fever which I have spoken of. This, however, I am certain of, viz. that every patient in my neighbourhood who, at the time in question, and for some time after, was attacked by the true and undoubted plague, presented the same concurrence of symptoms, both during the accession of the disease and its decline. But,

"Tua res agitur paries quum proximus ardet."

The danger came to my own doors, and I was persuaded by my friends to add myself to the increasing list of fugitives. I and my family retired a few miles from London. I returned, however, earlier than my neighbours; and, as the calamitous violence of the disease still continued, I was necessarily called in, for the want of a better practitioner, to the relief of the sufferers. Within a short period I had seen several cases; and it was with no small surprise that I discovered that this fever simulated the character and genius of the fever that I had, before my departure, so successfully treated. This enabled me to prefer my own experience to any theoretical precepts; and relying upon it, I had no hesitation in bleeding as before.

37. In this practice of taking blood freely (recommending at the same time the use of ptisans and a cooling diet), I continued, and I thereby wonderfully benefited many patients. At last, however, I found a great drawback to my endeavours in the prejudices of the bystanders. Taken up with their vain conceits, they would not allow me to draw the proper quantity of blood; hence I missed my usual success in several cases. All this was bad for the patient. The whole gist of the treatment lay in taking either no blood at all, or else a sufficient quantity.

Owing to these objections, I considered that some mode of obviating the disease, independent of venesection, would be highly advantageous.

38. I will here give an instance of the mischief that I innocently committed, not from having taken blood, but from being hindered of taking it as I wished. I was called in to a young man of sanguine temperament and athletic habit, who had been seized with a violent fever. There was vertigo and pain in the head, violent vomiting, and similar symptoms. These had lasted two days. He told me, however, upon inquiry, that no signs of a tumour had appeared. I immediately ordered free bleeding, with a ptisan and cooling broths and juleps. The blood, upon cooling, had the *pus*-like surface of pleurisy. In the afternoon he was again bled to the same amount; and again the next morning. Towards the close of the day I visited him, and found him much better; his friends being strongly opposed to any further loss of blood, in favour of which I as strongly contended. I explained to them that one more bleeding alone was wanted, and that that would place him out of danger; that if this were opposed it would have been better for him not to have been bled at all, but for the cure to have been affected by diaphoresis. In one word, I said that he must either be bled or die. The event confirmed my prophecy. The altercation upon the point permitted the opportunity to pass by, and crimson blotches appeared the next day. The remains of the peccant matter which ought to have been wholly eradicated, were retained in the blood, to the perversion of its whole mass, whilst their excessive subtilty broke up the tissues. The previous phlebotomy had precluded the evacuation in the way of abscesses. The patient died a few hours after.

39. Opposition of this sort met me so often, that I spent much thought upon the discovery of a method equally efficacious and less liable to objection. After a long consideration, I fell upon the following; and I have invariably found it beneficial, and in all respects unexceptionable.

40. In the first place, provided that the tumour had not protruded, I drew blood according to the strength and temperament of the patient. After this the diaphoresis came quickly and easily. Otherwise it was exceedingly difficult to elicit, and, in some constitutions, engendered the risk of an increased inflammation, and of crimson ecthymata. The benefits of so immediate a diaphoresis well made up for the loss of blood, which, under other conditions, would, however trifling, have caused much mischief. For the sake of having everything at hand for the perspiration, I ordered the bleeding to be performed upon the patient in bed, and the instant it was over, I covered him up with the bedclothes, and laid a woollen cloth upon his forehead. A cover of this kind promotes sweat far more than one would think. After this, and if there was no vomiting, I prescribed sudorifics of the follwing character:

℞ Venice treacle, ʒss;
Egg electuary, ℈j;
Compound powder of crabs' eyes, gr. xij;
Cochineal, gr. viij;
Saffron, gr. iv;
Kermes juice, q. s.

Make into a bolus; to be taken every six hours. Drink after it six spoonfuls of the following julep:

℞ Aqua Cardui Benedicti,
Aqua scordii comp., ää ℥iij;
Treacle-water, ℥ij;
Syrup of cloves, ℥j.

Mix, and make into a julep.

41. It often, however, happens, both in plague and pestilential fever, that vomiting occurs. In this case, I defer the administration of a sudorific until the mere weight of the bedclothes has brought on the commencement of a sweat. To promote this, I draw a part of the sheet over the patient's face and collect the steam of his breath. It is well worthy of observation, that as soon as the rays of the morbific matter extend themselves towards the surface of the body, the flux and vomit-

ing cease of themselves. These had originated from the inward reflection of the same morbific radii, and from their lodgement in the inner parts. However great may have been the previous irritability of the stomach, medicines that are taken when a perspiration has once begun, are kept down without difficulty, and these procure as much more diaphoresis as can be wished for.

42. I remember being called in by an apothecary to attend his brother who was dangerously ill of the pestilential fever, and that as soon as I spoke about sudorifics, I was told that several of the strongest had already been tried to no purpose; that they had all been cast up again. To this I replied, "Bring me the strongest and the most nauseous of all that you have given, and see if I will not prevent its being rejected." I kept my word. The moment the patient had begun to perspire slightly under the mere weight of the bedclothes, he swallowed and kept down a bolus of Venice treacle. This procured him a free sweat, and he recovered.

43. To return, however, to my subject. I order the diaphoresis, when it has once begun, to be kept up by draughts of sage posset, or warm beer with mace, taken occasionally, and continued during the whole twenty-four hours; all abstersion being religiously interdicted. So far do I carry this last point, that I forbid the patient to change his shirt, foul or wet as it may be, within twenty-four hours after the conclusion of the sweats. Upon great caution in this matter I especially insist, since, if the sweating be confined to a narrower limit of time, the severity of the symptoms is instantly renewed, and the safety of the patient, which a longer sweat would have put beyond a doubt, is now exceedingly problematic.

44. And here I cannot but express my surprise at Diemerbroek[1] and others, who allow themselves to be swayed by such slight considerations as the strength of the patient, and, on such grounds, interrupt the diaphoresis. In the first place, it is well known, even to the novices in the treatment of plague, that the patient has never before been so strong as he is during the height of his perspiration. I have no hesitation in openly stating, and in defending the results of my practice and expe-

[1] De Peste, iii, 6.—[G.]

rience upon this point. A great many who, at my recommendation, have been plunged into a sweat of twenty-four hours, have been so far from complaining of being weakened thereby, that they have asserted that they felt accessions of fresh strength just in proportion as they sweated out their superfluous humours. Several times, however, I have noticed, and that not without surprise, that a few hours after the diaphoresis had been brought about by medicine, a second has broken out, more natural, more genuine, and more abundant than its predecessor; one, also, that relieved the patient much more, and seemed to be critical and eradicative to the disease. I may add also, that during the height of the sweat, I see no reason against supporting the patient with restoratives, in the way of broths and soups, so that the objection concerning the insufficiency of his strength to bear a protracted diaphoresis falls to the ground. Hence, if there appear any flagging towards the conclusion of the sweat, I allow a little chicken-broth, the yelk of an egg, or something of the kind. These, in conjunction with the cordials and the proper sudorifics, abundantly ensure against prostration. In a matter, however, so plain as the present, there is no need of further arguments. The fact that plainly proclaims the advantage of the practice is the following: as long as the patient sweats profusely, he seems to do well, and even the lookers-on consider him wholly out of danger. On the contrary, from the moment that the body begins to get dry, and as soon as the sweat is interrupted, all things go from bad to worse, and death comes upon him with a back-stroke.

45. I give orders against exposure to cold during the whole twenty-four hours that follow the conclusion of the sweat. The shirt must dry on the body. All drinks must be taken warm. The use of the sage posset must be continued. The next morning I order the common purge of senna leaves, infusion of tamarinds, rhubarb, manna, and the solutive syrup of roses. By this treatment I cured many patients of pestilential fever in the year after the plague. Indeed, from the time that I adopted it, I never lost one.

46. When the tumour has shown itself, I am afraid of bleeding, even when the patient is ever so indisposed to sweat; I am afraid lest the morbific matter rush in a heap towards the emptied vessels, when the sudden death of the patient would

anticipate the wished-for diaphoresis. Nevertheless, it may possibly be safe to adopt bleeding when we can ensure a diaphoresis immediately and directly after it, and when, by continuing the same through the period above mentioned, we may gradually dissipate and disperse the whole mass of the tumour. All this may, perhaps, be safer than to continue waiting for the regular maturation of the abscess, which, in so over-acute a disease, is both uncertain and fallacious.

47. Finally, and to conclude, in all points of theory where the reader finds me in error, I ask his pardon. In all points of practice I state that I speak nothing but the truth; and that I have propounded nothing except what I have properly tried. Verily, I am sure that, when the last day of my life shall have come upon me, I shall carry in my heart a willing witness that shall speak, not only to the care and honesty with which I have laboured for the health of both rich and poor who have intrusted themselves to my care, but also to those efforts which I have made, to the best of my power, and with all the energies of mind, to give certainty to the treatment of diseases even after my death, if such may be. In the first place, no patient has been treated by me otherwise than I would myself wish to be treated under the same complaint. In the second, I have ever held that any accession whatever to the art of healing, even if it went no further than the cutting of corns, or the curing of toothaches, was of far higher value than all the knowledge of fine points, and all the pomp of subtle speculations; matters which are as useful to physicians in driving away diseases, as music is to masons in laying bricks.

48. One concluding observation I have yet to add, and I do so lest any one twist my meaning by an improper interpretation; or at any rate lest he misunderstand it. In the foregoing discourse, I often use the word *Nature*, and attribute to it various effects; just as if I pictured to myself under this name something universally diffused throughout the whole framework of the world; something that ruled, as it were, and regulated all substances reasonably and with intelligence; something, in short, like the *animus mundi* in the ideas of some philosophers. Now, for my own part, I dislike innovation, both in fact and language; so that throughout my pages I have used the term *Nature* as an old word with a limited meaning: a

meaning which I believe all understand, and some adopt. Hence as often as I apply it, I mean the whole complication of natural causes; causes which in themselves are brute and irrational, but which, nevertheless, are regulated by the highest reason, and which, under its guidance, perform their functions, and exhibit their operations. The Supreme Deity, by whose power all things are produced, and upon whose nod they depend, hath in his infinite wisdom, so disposed all things, that they betake themselves to their appointed works after a certain order and method; they do nothing in vain; they execute only that which is the most excellent, and that which is the best fitted for the universal fabric, and for their own proper natures. They are engines that are moved, not by any skill of their own, but by that of a higher artificer.

SECTION III.

CHAPTER I.

THE EPIDEMIC CONSTITUTION OF THE YEARS 1667, 1668, AND PART OF 1669, IN LONDON.

1. In the year 1667, at the approach of the vernal equinox, the smallpox, which, during the pestilential constitution of the years immediately preceding, had either wholly lain in abeyance, or else had appeared very rarely, began to show itself, increased day by day, and by autumn had become thoroughly epidemic. From that time forth its vigour declined, and as the winter approached its ravages became less. With the beginning of the ensuing spring it returned from its retreat, took strength, and spread itself until it became restrained, as in the year before, by the frosts of winter; these checked its attacks. After this it came a third time, and showed itself strong in the early part of the spring. It soon, however, began to flag, and became crippled; extended itself less than in the two preceding summers; and finally, in the month of August, 1669, died away altogether, making way for an epidemic dysentery. However, during the two first years that this constitution prevailed, smallpox attacked more persons in London than ever I remember it to have done either before or since. Nevertheless, as the disease of this period was normal in character, and of a mild sort, it killed but few compared with the enormous number of sufferers from it.

2. At the same time that the smallpox began to show itself a new form of fever arose. With the exception of the eruption of pustules, and the symptoms that depend thereon, it was not much unlike smallpox: of this we shall speak in the sequel. This fever did by no means attack so many as the smallpox, yet it lasted just as long. Moreover, it prevailed during the winter, the time when the smallpox receded; whilst during the

spring, when the smallpox took strength, it kept back. It thus left the epidemic predominance under this constitution to the smallpox. Nevertheless, it never wholly ceased; until in the month of August, 1669, it took flight for good, and that in company with the smallpox.

3. A third disease accompanied these two epidemics, especially during the summer of the last year; this was diarrhœa. At that particular time the atmospheric constitution was inclining towards the subsequent dysentery. Be this, however, as it may, it was certain that the diarrhœa was so closely akin to the fever that it came in contact with, that it looked like a fever turned inwards, and attacking the viscera.

4. Concerning these three diseases, the only ones which under the present constitution claimed the title of epidemics, I now proceed to speak separately. I begin with the smallpox, and mean to treat it somewhat fully. As it prevailed during the years in question, it appeared to me to be pre-eminently genuine, and remarkably regular; it generally exhibited the same phenomena; those whom it seized, it everywhere attacked with a similar series of symptoms. As it seems the most typical of its genus, it is from it that the true history of the disease and the proper *methodus medendi* are to be taken.

5. It must be remarked that not only in the case of fevers does each peculiar constitution determine a proper and peculiar form, but that smallpox also has its peculiar kinds, which take one form during one series of years, and another during another, much as each may seem to agree with the other in certain common phenomena. So much does Nature sport in the generation of epidemics.

To return, I shall thoroughly, and in the first place, exhibit the history of the smallpox of the kind in question. This I shall denote by the term *regular*, in order that I may distinguish them from the anomalous smallpox of the succeeding years; afterwards I shall subjoin the *methodus medendi* which best succeeded in my treatment of them.

CHAPTER II.

REGULAR SMALLPOX DURING THE YEARS 1667, 1668, AND PART OF 1669.

1. In those years when smallpox appears as an epidemic, and when it is mild and *regular*, it sets in like the disease I am now speaking of, as late as the month of March.

In those years when, besides being epidemic it is dangerous and *irregular*, it sets in as early as the month of January.

It attacks whole families with its contagion, sparing no one, whatsoever may be his age, unless he has before been ill of it. Nor do they escape who have only had a spurious form of the disease.

There are two sorts of the epidemic as well as of the sporadic smallpox, viz., the distinct and the confluent. Between these two forms there is not what we call an *essential* difference; still, as several marked symptoms accompany the one, without appearing in the other, they are easily distinguished from one another.

2. Distinct or discrete smallpox sets in with rigors and shivers; to these an intense heat succeeds, accompanied with severe pain in the head and back, inclination to vomit, great tendency to sweats, sense of pain upon pressure in the pit of the stomach, stupor, and drowsiness, especially with infants, and occasionally epileptic fits. When these seize infants who have just done teething, I always suspect that smallpox is on the road, and generally its eruption verifies and confirms my prophecy by breaking out within a very few hours, so closely, that if an infant, as is generally the case, has a fit of convulsions in the evening of one day, smallpox will have shown itself by the morning of the next. I have also noticed that the smallpox which attacks infants immediately after fits of this sort, presents full-sized pustules, which are rarely confluent, the disease being mild and of a good sort. The tendency, however, to perspiration I have never observed in infants, either before the eruption or after; it seems limited to adults.

Such are, for the most part, the symptoms by which smallpox is accompanied at its commencement, and which generally

precede the eruption of pustules. The present, however, may be a proper place for suggesting that where the blood is of a lax tissue, and liable to the influences that change it, the period of separation may be got over gradually and imperceptibly, without any notable disorder, during the time that precedes the eruption of pustules.

3. Counting the first as one, discrete smallpox generally shows its pustules on the fourth day of its invasion, sometimes rather later, rarely sooner. At this time the symptoms are either greatly diminished (and this is generally the case), or wholly vanish; the disease then appears to go on well, except in the case of adults preternaturally disposed to diaphoresis. This goes on even when the coverings are of the lightest sort, and the tendency remains until the pustules approach their maturation; they then depart of themselves. As to the eruption, it comes out thus: pustules of a pale red colour, the size of the finest pins' heads, present themselves promiscuously over the body; first on the face and neck and breast, afterwards over the whole body. At the same time there is a distressing pain about the jaws; this increases as the pustules rise. These grow greater every day, rise more and more to a head, and extend a redness and inflammation over the skin and the neighbouring tissues.

4. About the eighth day from the first accession (and in this disease we must always keep a reckoning), the spaces between the pustules, which were at first pale, begin to grow red in proportion to the number of pustules that stand about them; they also swell, and the swelling is attended with tension and lancination of the parts around; this increases every hour, and occasions the inflammation and swelling mentioned above. As the disease advances, the eyelids become so stretched and swollen, that the patient is unable to see; the eyelids themselves being no bad representations of an inflated and translucent bladder drawn across the eyes. Occasionally, so great a mass of pustules may have spread itself, during the beginning of the eruption, over the eyes as to blind the patient. Next to the face the hands begin to swell, and the fingers are puffed out in proportion to the amount of the pustules. Up to this time the pustules on the face have been smooth, and have felt level when you touched them with the hand. They now

become elevated, and this is the earliest sign of their incipient maturation. They also become paler. Gradually they give out a yellow juice of the colour of honey. Meanwhile the inflammation of the face and hands has reached its height, and it exhibits in the interspaces of the pustules a florid colour, like that of the damask rose. In truth, the more regular and the more genuine the disease is, the more do the pustules and the interspaces accurately exhibit the colour I have just illustrated. Just, however, as the pustules on the face become day by day rougher and yellower in proportion to the stage of their maturation, so, on the other hand, do the hands and the rest of the body become day by day less rough, and more pale.

5. On the eleventh day the swelling of the face and the inflammation evidently go down, and the pustules both of the face and the rest of the body attain both their full ripeness and proper size; this latter being for the years in question that of a large pea. They then dry up, and fall off. In smallpox of this kind they have generally disappeared by the fourteenth or fifteenth day. The pustules, however, of the hands, and of the other parts that generally retain them longer, still remain fresh and white, and outlast the others by a day or two. The pustules of the face and the rest of the body, except the hands, desquamate; those of the hands break and run off. The pustules of the face are succeeded by branny scales, and these again are often succeeded by pits or depressions of the skin. When the pustule first comes off, no inequality can be seen in the skin. Afterwards, however, when scales of the sort in question rise up, and get given off in succession, depressions are excavated, and these are the marks which we see on the faces of convalescents long after their recovery. Still it is very rarely the case that the distinct smallpox leaves its mark. When it does, the disease has generally occurred during the latter half of the year. Smallpox within the first six months, unless, as will be stated in § 10, it has been confluent, never makes pits. During all the stages of the disease the patient is either quite costive, or passes but few motions. Thus much concerning the distinct smallpox.

6. That species of smallpox which we call confluent has its symptoms common with those of the species we call discrete, except that they are all more violent. The fever, the anxiety,

the depression, the disposition to vomit, are all more distressing, —so much so, that by intensity of these alone, the sagacious physician can prognosticate before the appearance of the eruption, that the disease will be confluent. Nevertheless, the patient is not so ready to fall into a sweat as in the distinct form. When this disposition is excessive, it serves as a sign to show that the forthcoming pustules will be anything rather than confluent. In confluent smallpox, diarrhœa both precedes the eruption by a day or two, and continues for a day or two after its appearance. This is what I have never yet observed in the discrete form.

7. The confluent smallpox generally breaks out on the third day, sometimes before, hardly ever after; whereas the distinct form either appears on the fourth day (inclusive from the first accession of the disease) or after; rarely before. The more the eruption shows itself before the fourth day, the more sure it is to become confluent. Nevertheless, however much, it may be the case that, generally speaking, confluent smallpox rarely waits for the fourth day before it shows itself, it sometimes happens (although very rarely indeed) that, owing to the effect of some formidable symptom, the pustules are kept back to the fourth or even the fifth day. Illustrative of the character of these symptoms, I may mention acute pain, either in the lumbar region and like a nephritic paroxysm, or else in the side and like the pains of pleurisy. Or it may come in the limbs like rheumatism, or it may settle in the stomach; in which case the patient is harassed, and afflicted with great distress, and violent vomiting up to the time of the breaking out. In cases like these, rare as they may be, I have noticed that the eruption comes later than usual; being coerced and hindered by the violence of the aforesaid symptoms. When such like symptoms usher in the disease, I am quite satisfied that it will be confluent, and that danger will attend it.

8. In the next place I must inform you that, although (as aforesaid) in the discrete smallpox the symptoms that ushered in the disease give no trouble after the eruption has once appeared, the case is very different in respect to the confluent form. Herein both the fever and the other symptoms afflict the patient for many days after the eruption of the pustules.

9. The aforesaid smallpox breaks out sometimes after the

fashion of erysipelas, sometimes like measles. From these they are difficult to be distinguished even by the practised physician, provided that he goes by the external appearance only. However, by carefully considering the difference between the dates of the eruptions, and the other marked points of distinction which the respective histories of the diseases present, we may easily discriminate. As the disease goes on, the pustules (and more especially those that envelope the face) are not, as in the discrete kind, elevated to any appreciable size. They press upon one another. They look at first like a red bladder covering the whole face. They also swell up the face earlier than discrete ones. Lastly, they glue themselves to the face like a white skin, without rising much above the surface.

10. After the eighth day the white skin becomes every day gradually more uneven; at least so it seems, if we feel it with the finger. Moreover it turns brown; not yellow, as in the discrete species. Day by day this unevenness increases; day by day the colour of the skin becomes darker. Finally, the aforesaid skin peels off in broad laminæ. In parts of the face, when the disease has been severe, this will not take place before the twentieth day. In proportion to the severity of the disease, the ripening pustules put on a dusky hue. In proportion also to the severity of the disease, they are, if left to themselves, slow in going away. On the other hand, the less they are confluent, the quicker they go off, and the yellower they look. The skin, when it first falls off, leaves no roughness behind; it has been one universal scab. However, it is soon followed by a branny scurf, of a very corrosive character; and this not only digs deeper pits than is done by the discrete pustules, but also deforms the face with hideous scars. In the confluent smallpox, provided that the case has been exceedingly severe, the skin of the back and shoulders is sometimes taken off, to the exposure of parts beneath.

11. We must bear in mind that this disease is to be held dangerous, not in proportion to the thickness of the pustules on the trunk and extremities, but according to the number that show themselves on the face. If upon the face they lie as thick as sand, it is no advantage to have them few and far between on the rest of the body. The danger is as great as if every limb was beset with them. On the other hand, the trunk

and extremities may be crowded with them to excess. If the face, however, be comparatively free, all is safe. Now what applies to the number of the pustules applies also to their character. It is the face that determines whether it be good or bad.

12. In confluent smallpox I have ever observed that on the hands and feet the pustules were larger than on the rest of the body; and that in proportion as they ascended from the extremities to the trunk, they grew less and less, as well as more contracted. Thus much concerning the pustules.

13. There are two other symptoms which occur with confluent smallpox, and which are of equal importance with either the pustules themselves or the swelling that goes along with them. Indeed, they are as important as any symptom whatsoever. These are—1, salivation with adults; 2, diarrhœa with infants. The first of these is so regular an attendant, that I only know one patient who had the confluent smallpox without it. The second, or the diarrhœa, is less uniform; and does not so certainly attack infants labouring under the species of disease in question. Now whether the providence of Nature has substituted these evacuations because the pustules of confluent smallpox, being undersized and depressed, are less able to eradicate and expel the morbific matter than the well-developed and acuminate pustules of the distinct species, I cannot take upon myself to decide. I am writing histories, not solving problems. But this I know for certain, they generally accompany confluent smallpox; and, besides this, the clearance they effect is just as necessary as either the eruption of the pustules, or the swelling of the hands and face.

14. The aforesaid salivation sometimes shows itself on the first day of the eruption; sometimes on the second; occasionally on the third. The spit is at first thin, and is easily brought away. The patient will dirty many handkerchiefs during a single night. Except that it is less offensive to the smell, the ptyalism is the ptyalism of mercury. But about the eleventh day the saliva becomes more viscid, and is spit away with greater difficulty. The patient becomes thirsty; he coughs during his drink; whilst the liquid returns through the nostrils. From this day the salivation generally ceases. Occasionally, however, although rarely, after having ceased for a day or two, and that completely, it returns to set in afresh. On the eleventh day,

however, the salivation and the swelling of the face alike begin to abate; and from that time forwards the hands either begin to swell, or ought to do so.

15. Diarrhœa does not begin with infants so early in the disease as salivation does with adults. At whatsoever time, however, it sets in, it will continue throughout its stages, unless checked by medicine.

16. In both forms of smallpox the fever most prevails between the time of the first accession and the eruption. When this last has taken place, it generally abates until the ripening of the pustules, and the period for the formation of pus. When this is over, it ceases altogether.

17. I have invariably noticed that, in the severer cases of smallpox, the patient has, as it were, a fit in the evening; and that, at that time, the more serious symptoms show themselves in an aggravated form.

18. This is the true history of this kind of smallpox; and it embraces the real and genuine phenomena of the disease as they appear in Nature. I will now discuss the accidents and irregular symptoms that supervene upon improper treatment.

19. It must be remembered that those irregular symptoms which occur in distinct smallpox on the eighth, and in confluent smallpox on the eleventh day (reckoning always from the first accession of the disease), are of paramount importance in the way of life or death; and that it is these which must most accurately be considered. It is an undoubted fact, that the greater part of such as die of either of the two diseases, die upon one of these two days.

20. In the first place, in a case of discrete smallpox, the patient thinks that because he sweats freely, as (according to a previous statement) adults generally do sweat, all is going well; he believes that the virus of the disease is passing off through the pores of the skin; he keeps up this same sweat by taking cordials inwardly, and by heating diet; he does this all the more readily because he seems at first to mend upon it, and because it tallies with the unfounded judgments of his friends. Now that which is eliminated by this diaphoresis is, in reality, the particles which should supply the elevation of the pustules, and the swelling of the face; so that, on the eighth day, the face, which ought properly to begin to swell, and to

become inflamed in the pustular interspaces becomes flaccid; whilst the interspaces become pale. Meanwhile the pustules themselves may keep their colour and elevation, but this they may do when the patient is dead. Moreover, the sweat, which up to this time had flowed freely, now suddenly and spontaneously checks itself: the warmest cordials being unable to bring it back. In the meanwhile the patient becomes delirious, anxious, restless, distressed. He passes his urine frequently, and in small quantities. Within a few hours, he disappoints the hopes of his friends, and expires. Here, however, I may remark that, provided that the pustules be few in number, that the season be the winter season, that the patient be advanced in years, or that the lancet has been used, the hot regimen which has just been alluded to is not so certainly mischievous, does not so certainly prevent the swelling of the face, and is not so sure a precursor of death, as it is when the disease is confluent, when the season is that of spring or summer, when the patient is in the prime of life, or when blood has not been drawn.

21. In confluent smallpox the patients run the most risk, and most generally die on the eleventh day. This is the day whereon the salivation, which has hitherto been a safeguard to the patient, generally ceases of itself; so that, unless either the swelling of the face which is still kept on slightly, and that of the hands which should now begin notably, supply its place, the patient must necessarily die. For we must ever remember that in this form of smallpox, where the pustules are undersized, not only is the salivation required for the due elimination of the morbific matter, but the swelling of the face as well; so that if either of these be wholly absent, or disappear before its time, death must ensue forthwith. Now it too often happens in a disease of so hot a nature as the present, that the crasis of the blood may be impaired and undone by too hot a regimen; and that it may be so heightened as to be incompetent to the gradual expulsion of the inflamed particles. When this happens —to say nothing concerning the mischief that arises from forced sweats—one of two things occurs. Either the face and hands do not swell at all, or the swelling disappears with the salivation. That on the same day when the salivation ceases, the swelling of the face should slightly *abate* is quite true: but it ought by no means to disappear altogether until a day or two

afterwards; and even then the hands must keep on swelling as before. Than this there is no surer sign of convalescence; than the contrary there is no surer sign of death.

22. Be this, however, as it may, the sputa, which up to this day have been crude, thin, and easily got rid of, become now viscid and tenacious, and threaten the patient with suffocation. Whatever he drinks generally goes down into his lungs; whence it is rejected through the nostrils, with a violent coughing. His voice becomes hoarse. He lies oppressed with a heavy drowsiness and stupor. The weight of the disease wholly overwhelms him. In an agony of this kind he generally dies on the above-named day.

23. There are also other symptoms which may occur during any stage of the disease, and are common to the distinct and confluent varieties.

Brain fever, for instance, may originate from the excessive ebullition of the blood. The patient will then become so impatient of heat, that he will strive with all his force, and with furious struggles, to disengage himself from the hands of those friends who confine him to his place in bed.

Occasionally a different effect arises from the same cause, viz. comatose stupor. The patient will never keep awake unless roused by repeated shakings.[1]

24. Sometimes in this disease, as in plague, the tissue of the blood being broken down by the force of the inflammation, crimson spots show themselves amongst the pustules, the almost invariable forerunners of death. This happens oftenest when the atmospheric constitution is pre-eminently favorable to the epidemic development of that disease. Sometimes little black specks, scarcely so large as a small pin's head, and sunken on the centre, show themselves, in different places, on the tops of the pustules. These originate in too great heat. An improved regimen changes them to dusk. Afterwards they gradually take the pale-yellow hue, which is natural to genuine and regular smallpox. That this is the true colour, may be clearly seen in the practice for the disease. Every symptom becomes more favorable in proportion as the ripe pustules approach it, and *vice versâ*.

25. With youths, and with men in the prime of life, espe-

[1] In the original, *nisi continuo* pulsu *excitatus*.

cially if they have filled themselves with wine or spirituous liquors, the blood sometimes rages to such a height as to force its way through the arteries, and through the bladder—

"Quâ data porta ruit."

—In the whole catalogue of evils incident to this disease, you will find no more ill-favored and ill-omened symptom than this same hæmaturia.

26. From a similar cause (although more rarely) blood is ejected from the lungs.

Each, however, of these hemorrhages occurs, for the most part, during the beginning of the complaint, and before the eruption of pustules; or at any rate whilst they lie, for the greater part of the body, huddled close under the skin, however much they may have shown themselves in a few places. Such pustules are of the sort, that when they ripen become preeminently confluent, unless, indeed, the symptom we have just spoken of prevent their development by killing the patient.

27. Sometimes, to crown all, there is a total suppression of urine. This is commonest with youths; and that at the height or even during the decline of the distinct species.

28. There are, besides these, other symptoms which originate in causes different from any hitherto mentioned. The patient may have taken harm from having been improperly exposed to cold, or he may have been bled haphazard, and to a great extent; or the bowels may have been over-purged. From all, or from any of these causes, the pustules may suddenly flatten and sink in; or diarrhœa may supervene. There is great danger from this (as stated in § 13) whenever the patient is an adult; inasmuch as the variolous matter is turned inwards, and Nature becomes wholly unable to eliminate it as she ought to do through the pores of the skin. To this we may add, that the swelling of the hands and face is put back,—a point which is to be counted amongst the good chances of the patient as truly as the eruption itself, unless, indeed, the pustules have been wonderfully few.

29. The mischief, however, that arises from the taking of cold, is of very rare occurrence, compared with the evils which arise from the contrary treatment, or from too heating a regimen. The disease itself is so properly classed amongst the

hottest of the hot, that errors on the side of coolness are far rarer than their opposites.

30. As to what may be the *essence* of smallpox, I am, for my own part, free to confess that I am wholly ignorant; this intellectual deficiency being the misfortune of human nature, and common to myself and the world at large. Nevertheless, when I carefully weigh the evidence derived from the above-named symptoms, it suggests to me the idea of inflammation; of an inflammation specifically different from all others; of an inflammation both of the blood and humours. In clearing herself of this, Nature is at work during the first two or three days, striving at the digestion and concoction of the inflamed particles, with the intention of afterwards discharging them upon the surface of the body, for the sake of maturation, and finally of expelling them from her boundaries under the form of little abscesses.

We must, then, if we wish to make our *methodus medendi* the superstructure to a foundation in principles, recognise two periods in this disease; 1st, the period of separation; 2d, the period of expulsion.

31. The first of these two periods is generally passed in a febrile ebullition, which usually is completed within the first three or four days. During this stage, Nature is employed upon picking out and gathering together those inflamed elements which fret the blood, in making them over to the fleshy parts of the body, and in depositing them therein. This being accomplished, she returns to her former repose, having allayed the tumult which was excited, during her operations, in the blood.

When the ebullition has thus brought about the separation, the process of expulsion begins, and this continues during the remainder of the disease, by means of the little abscesses in the solid parts. These, inasmuch as they agree with a true abscess in character, pass through all the stages, viz. those of crudity, maturation, and exarescence. If all this is done properly, matters are safe. Upon its being done properly, however, all the chance of cure depends. Everything goes wrong when this is faulty. Now, this last-named process, or that of expulsion, takes up more time than the other. It has to do its work in a thicker and denser medium, and on one more remote from the fountain of life. Whereas the separation takes place in a subtile and fluid body, and in the very focus of Nature.

32. With these premises, two indications of treatment present themselves. 1. The ebullition of the blood must be kept to a regular rate, so that it neither hurry over the work of separation too quickly and too violently; nor yet check it by any torpidity of movement. Still less must it work it out insufficiently. 2. The little abscesses, or pustules, must be carefully kept up, so that they may go through their proper stages, void the matter that they contain, and, finally, themselves disappear.

33. I will say a few words on the first point. We must take especial care, lest the ebullition rise too high. This it may do under the weight of blankets, under the over-heated state of the air in the apartment of the patient, or under the use of heating medicines and cordials. All these must more particularly be guarded against when the patient is in the prime of life, when he has raised the natural heat of his blood by generous liquors, and, lastly, when the season of the year is early, i. e. spring or the beginning of summer. The effect is as follows: the separation, which ought to take its time and be performed gradually, and which ought to go forward to a general despumation, is urged on headlong; so that the particles are not gathered together in a sufficient number. Or else, on the other hand, it may happen that other particles, which Nature, had she not been forced beyond her limits, and constrained to do violence to herself, never meant to part with, be condemned to expulsion. Now, when there is a separation of particles, where separation is out of place, the admixture does mischief, since other particles, whose movement is really in that direction, are thereby obstructed. And this makes them all the more unfit for expulsion.

34. To me it has ever seemed most reasonable that (provided the ebullition do not altogether fall asleep), Nature should be supposed to effect a certain and universal separation, just in proportion as she allows herself time for the transaction; that the chances of successful treatment especially and necessarily depend upon a separation of this leisurely sort; and that the contrary method gives us a contrary prognosis. From an over-hot regimen, good never came, any more than from over-hasty fruit any profit. On the contrary, it often happens that the patient runs headlong into a brain fever; or, that (worse still) violent

sweats arise. Such sweats eliminate particles that are unfit for secretion, and which have none of the characters of true pus, pus being the proper product of this secretion. Finally, from the use of your vaunted cordials, and from your hot treatment, the pustules may be crowded together and rendered confluent. Here we have a sad sight, if not the signs of an inauspicious upshot.

35. Such and such-like mischief comes of such and such-like blunders. With the other method I have seen nothing of the sort. Nature, left to herself, does her own work at her own rate; both secreting and expelling the morbific matter in due course and time; acting best when she acts on her own resources; being best supplied when she relies on her own ways and means; best instructed when she trusts to own mother-wit; wholly independent of all our arts, all our aids, and all our contrivances. This power of Nature tells most in young patients, and vigorous constitutions. I have never yet either seen myself, or heard from others, of a single case where the patient died because the pustules did not come out at first, although too many have done so after they had come out laudably and auspiciously. They afterwards, however, sunk down and struck in before their time.

36. Just as it is rash and perilous to raise the ebullition of the blood to too great a height by the means of cordials and a hot regimen, so, on the other hand, there is no little danger in checking it by means of venesection, clysters, emetics, cathartics, &c. By all such means as these, the proper secretion of the separable particles is impeded. Upon this question, the vulgar and common-place argument against bleeding and other evacuations has no bearing. The statement that it is improper to transfer the humours from the circumference to the centre, in a disease like the smallpox, where Nature is transferring them from the centre to the circumference, is met by the fact, that experience teaches us to the contrary, inasmuch as it has frequently been observed that a sudden evolution of the eruption has been consequent upon evacuations. The true reasons are of another sort. These teach us that where we can avoid it we must keep our hands clean of such practice.

To deal briefly with some of the chief of these reasons, I may remark, that the evacuations in question not only lower

the character of the ebullition by the means whereof the particles that are intended for despumation are carefully separated from the rest, but also withdraw the very food and fuel which were constantly to have been supplied to the secretion. Hence it has happened that pustules have begun with breaking out in a laudable manner, perhaps all the better for a previous evacuation, and have ended with sinking down and striking in; and that after a brief appearance, and with sudden rapidity. The reason has been, that the matter, which should supply the place of what had been got rid of, and which should close, as it were, the procession of the morbid particles, has not been forthcoming.

Nevertheless, in spite of all these objections, if at any time we have the slightest reason to imagine that the smallpox, of which we await the eruption, will be of the confluent kind, we shall find it proper not only to bleed without loss of time, but also to prescribe an emetic. Reasons for this will be given at length hereafter.

37. To proceed to the second indication, viz. the time of the *expulsion*. As soon as the separate matter of the little abscesses, or pustules, is to be discharged and expelled through their medium, we must do our best to support them properly, so that they may attain their appointed period duly and in order.

38. It has been shown above, that it is particularly dangerous for the patient to be over-heated during the period of secretion, whilst the fever is going on, and before the appearance of the pustules. It is no less dangerous for it to happen during any other stage of the complaint; more especially, however, is it mischievous at the approach of the expulsive epoch, whilst the pustules are yet crude. However much the blood, after finishing the business of separation, and after the discharge of the morbific matter upon the fleshy parts may have rid itself of its intestine commotions, it is still young and delicate, has still to be supplied with a new status and texture, is highly susceptible of all influences, and, above all, is easily affected by any immoderate heat from any quarter, so much so, that under the slightest encouragement it takes fire, and is ready for a fresh ebullition. Now this secondary ebullition is not like its predecessor. The separation is over and done with; so that the ebullition has nothing to do with the separation. In place

thereof, it causes the above-named symptoms; adding to this, an interruption to the expulsive function of the pustules. It does mischief by disturbing the matter that they contain. Hence one of two things happens. Either the parts already secreted, and deposited on the surface of the body, are torn away from thence by the vehement and rapid ebullition of the blood, and taken up afresh into its volume; or else the fleshy parts, heated beyond the proper suppurative temperature, do their work imperfectly. Lastly, a new disorder sets in, in the shape of a perversion of the whole economy of the blood, and of the tone of the solid parts. These become unable to cope with the secreted matter, and to concoct it by the normal process of abscesses.

39. In the meanwhile we must not be so intent upon ensuring against an over-heated state of the blood, as to expose our patient to any injury from cold, and by so doing arrest the eruption of the pustules. The natural degree of heat is that which is best fitted for the development of such pustules. It is this, too, which best suits the temperature of the solid parts. Excess and deficiency are equally dangerous.

40. From what has been said, it is clear that the disease and practice are equally uncertain. Hereupon, I venture to assert that the physician who has much to do with smallpox runs many risks with his reputation. The vulgar are ever in the habit of ascribing deaths to the officiousness of the attendant; whilst physicians themselves catch greedily at opportunities for slander. They make out their case before incompetent judges, and procure most uncharitable verdicts. They act thus in order that they may build up a name for themselves upon the ruined reputations of others; a proceeding disgraceful to even honest artizans, doubly disgraceful to scholars.

The aforesaid difficulties explain why over-active and officious nurses so often cause failures. It is a hard problem, and above the capacity of females, to determine the precise degree of the requisite heat, especially when other things have also to be considered, e. g. the age of the patient, his manner of life, the season of the year, &c. These are points for the sagacious and prudent physician.

41. If it happen, either from the unseasonable use of the

lancet or from exposure to cold, that the pustules flatten, or that the hands and face sink from their swelling, cordials must be administered. Nevertheless, we must be cautious in our use of them. However much blood may have been lost, it may still turn out that in our exceeding fear for the strength of the patient, we may use such strong cordials, or may repeat them so often as to set up a fresh ebullition. The blood is still delicate and easily susceptible to the influence of any heating stimulus. Hence a repetition of ebullitions often occurs in the same patient. To these, rather than to the preceding venesection, the death of the majority of patients is to be attributed.

Thus much concerning the primary indications in general.

42. I must now go over part of the ground again, and come more closely to our practice. The moment that undoubted signs of smallpox have shown themselves, I forbid the patient wine, meat, and the open air. His ordinary drink is weak small beer, with a toast put in to take the chill off. His food is oatmeal porridge, barley broth, roasted apples, and the like; articles which are neither hot nor cold, and which give no trouble to the digestion. I have no objection to a form of diet that is common in the country, and which consists of a roasted apple mashed with milk, only it must be taken at intervals, moderately, and with the chill off the milk. Hot regimen I forbid altogether. I forbid also all such cordials as are used by some under the rash notion of propelling the pustules towards the skin before the fourth day, or the proper one for the eruption; since I hold as an undoubted truth that just in proportion as the pustules take their time in coming out, the separation of the variolous matter will be complete, and the better will be our security in favour of their proper maturation and against their striking in; whilst by being pushed out before their due time the matter is precipitated whilst it is yet crude and unconcocted. This deceives our hopes like over-hasty fruit.

43. Besides this, there is the further danger that any unseasonable diligence, especially with hot and sanguine temperaments, wherein the active principles themselves are equivalent to cordials, should so act upon Nature as to force and excite her over-much. In such a case she might go near to reduce the whole substance of the body to pustules, and these would of

course become confluent. Had they been left to their own pace they would merely have been discrete, and the chances would have been better. It must not be imagined that simply because the sick man suffers much pain and distress before the eruption, the pustules are to be forced forwards to the surface, from the first moment that we suspect the existence of small-pox. No single case can be shown of any one, however sick, having died on account of the pustules not having appeared at once, or on account of Nature having been found wanting to their extrusion sooner or later, excepting only those instances where she was hampered with a hot regimen, and the premature supply of cordials; since I have observed more than once in young subjects and sanguine temperaments, that a heating regimen and the use of cordials, adopted with the view of pushing out the pustules prematurely, have been so far from accelerating the eruption, that they have, on the contrary, arrested it. They have so heated the blood that it has been excited to a movement too violent for the proper separation of the variolous matter, whereupon the pustules have lain latent under the skin, and have resisted the influence of every sort of cordial in the attempts to bring them out; all that has shown itself being some other symptoms of the disease. This has been the case until by reducing the blood to a moderate and proper temperature, by unloading a part of the hot blankets, and by allowing only weak small beer, I have so far paved the way for the pustules, that, under Divine Providence, I have saved the patient.

44. Those who, previous to the fourth day, without being satisfied with keeping the patient within his sleeping-room, must also confine him to his bed, are, in my mind, just as unreasonable as the hasty and unseasonable pourers-in of cordials; since both the hæmaturia and the ecthymata, as well as the other deadly symptoms which I have spoken of above, originate only in this premature confinement. When persons are in the prime of life, this is preeminently the case. On the fourth day, however, I *do* order the patient to keep his bed, and at the same time, if the eruption be unsatisfactory, I allow a gentle cordial, which may be given, at least, once, with the view of promoting the pustules. Amongst the medicines that have this effect, the so-called *paregorics* (such as the liquid

laudanum, diascordium, &c.), mixed with a small quantity of the proper cordial waters, bear the bell. They check the æstuation of the blood, whilst Nature rids herself all the more easily and seasonably of the morbific matter. Still I would not recommend cordials before the fourth day, even if there were diarrhœa, a symptom which may seem to call for them. For although, as stated at § 6, diarrhœa may precede the eruption of the confluent smallpox (a diarrhœa that arises from the discharge into the intestines of those inflammatory vapours and humours eliminated by the turmoil and commotion of the blood during the first days of the disease), Nature will not be found wanting. She will no more fail in propelling these same variolous vapours towards the surface of the body, than she fails in expelling and eliminating those other vapours, which, by striking in upon the stomach during the commencement of the disease, cause vomiting.

Now, as soon as the variolous matter is determined to the surface, the diarrhœa stops of itself.

45. I must remark, that when I am called in to a young patient, and one who has lent a hand to the disease by the free use of wine or any other fermented liquor, I am not satisfied with attempting to restrain the ebullition of his blood, by the mere abstinence from his bed and from cordials. I go so far as to bleed him from the arm. If the prejudices of his friends forbid this, I at least urge it. To the intense heat natural to the humours in this disease, the inflammation consequent upon the impression of the spirituous liquors is superadded. Hence the blood rages with such violence as to be carried by the vessels into the bladder. Or else it may produce purple spots, and all those other symptoms which so much perplex the practitioner throughout the disease, and which so certainly kill the patient.

Thus much concerning what is to be done before the breaking out of the pustules.

46. When the pustules have once appeared, I consider carefully whether they belong to the distinct or confluent species, since these two forms widely differ from each other, although several symptoms are common to the two. If from the size and fewness of the pustules, from their late eruption, from the disappearance of the distress and the other grave symptoms (all of which in the confluent form, continue after the eruption),

I satisfy myself that the disease is discrete, I adopt the restorative treatment described in § 42, and which consists of weak small beer, oatmeal-porridge, barley-broth, &c. Moreover, if the season be summer, and the weather be hot, even for that time of the year, and if the pustules be few, I, for one, see no good in keeping the patient continually stifled in his bed. I like him better to get up for a few hours every day, provided only that the places he goes to and the clothes he puts on, ensure him against any harm in the way of either cold or heat. Give your patient a holiday from his bed, and his ailment will run its course in a shorter time and with less trouble than if he had continually been nailed down to it.

To do this last is to increase the tediousness of the disease, to encourage the febrile æstuation of the blood, and thirdly, to ensure a painful inflammation for the vesicles when they come out.

If, however, either the coldness of the season or the presence of a multitude of pocks, impose upon the patient the necessity of keeping to his bed, I take care that he do not lie warmer, or be more overloaded with blankets, than was his wont when well. A moderate fire I allow only during the approach of winter, and that only in the morning and evening. Neither do I confine him to one spot and posture, lest he break out in a sweat; since I can confidently affirm, both from experience and on the grounds adduced above, that such cannot be encouraged without great danger.

47. When the disease is going off, and when the free eruption of the vapours that proceed from the matter which has been converted into pus, is liable to be hindered by the hardness and crustiness of the pustules, it is proper to administer five or six spoonfuls of Canary wine, half boiled, or, in place of this, some temperate cordial, so that the putrid vapours may not return back to the mass of the blood. Now, and not till now, is the time for cordials. At the same time the diet may be of a somewhat warmer and more cordial nature. It may be sops of bread and beer with sugar, or it may be oatmeal gruel with beer and sugar. More than this will not be wanted as long as the disease be of the distinct and gentle sort, provided that the patient will allow of a treatment and diet so moderate. If, however, there be restlessness, or wakefulness, or any other

similar symptoms that threaten a brain fever, the occasional use of a paregoric is recommended.

48. This is the true and genuine method of treating this sort of smallpox, and however much it may be opposed by the great and unfounded prejudice of the partisans of an opposite practice, it is the method which will prevail when I am dead. I will not deny that many have been treated on a different principle, and that under such treatment they have recovered. On the other hand, it must be confessed that many have died under it. And this, when we consider that the disease of the distinct sort is in no wise dangerous of itself, is a sad reflection. Many die as it is, and more would do so were it not for the coldness of the weather at some of the seasons when the disease sets in, or from the practice of bleeding, otherwise unnecessary, which has lately come in fashion. Upon this principle, if either the obstinacy of friends, or the distrust of the patient interfere with the aforesaid regimen, I look upon it as safe to draw blood. In and of itself, this is bad practice, since it disturbs and confounds the necessary separation, and also withdraws the sustenance which was destined for the swelling and pustules. Yet it is a partial counterpoise to the hot regimen which is to succeed. Hence it renders this method, which we should not resort to, except upon compulsion, less dangerous and doubtful than it would be otherwise.

49. From these statements it is easy to answer the common question, as to why so many of the poor survive, and so many of the rich sink under an attack of smallpox: that is, comparatively speaking. This can be referred to one cause only, viz., the want of opportunity on the part of the poor man for hurting himself by a nice and delicate regimen. Their *res augusta domi*, as well as their more countrified manner of life ensures this. Still, even amongst the vulgar, many more have died of smallpox, since they learned the use of mithridate, diascordium, decoction of hartshorn, &c., than there did during the previous ages—ages less learned but more wise. Now-a-days, every house has its old woman,—a practitioner in an art which she never learnt, to the killing of mankind. Thus much concerning the treatment of the so-called *variolæ interstinctæ*.

50. But the pocks become confluent, and then there is much danger. *Periculosæ plenum opus aleæ*. I consider that the

confluent smallpox is as different a disease from the distinct, as the plague is from the confluent. Yet, with the generality of mankind, words are mistaken for things, and the treatment of the two diseases is the same. In this species of disease we have the result of a more intense inflammation of the blood. Hence, there is greater need for guarding the patient against being over-heated.

Now, however much this species of smallpox, from the great heat of its nature, may require a regimen even cooler than that of the last-named disease, yet, in order to promote the swelling of the hands and face, without which it is all over with the patient, and for the sake of the elevation and sustenance of the pustules, and lastly, because from the very pain of the ulcerations, the patient cannot but be confined, it is best for him both to keep his bed, and to keep his hands in bed. At the same time he must be but lightly covered with clothes, and may be allowed to change his posture from one part of the bed to another, just as he was allowed to do in the distinct forms of the complaint, especially towards the end of the disease. At that time, when the fever of maturation is coming on, he must not only be left free to turn about, but he must be advised to do so. Indeed he must be turned, and that very often, night and day. So doing, the great heat is allayed, and those sweats, by which the mild humour, which is necessary for diluting and ripening the pocks, would be carried off, are avoided.

51. It has been stated above, that ptyalism invariably attends this species. Now ptyalism is one of the main evacuations of Nature, and in this case stands in the room of the evacuation by the way of pustules. This last goes on worse in a low and weak disease like confluent smallpox, than in the discrete form. Hence, we must use our best endeavours to keep up the salivation, and to preserve it in its full force; neither must it be arrested before its proper time, either by the use of hot remedies, or by forbidding the patient to drink freely of small beer, and such like thin liquors. Now as it is the habit of this same ptyalism, when it follows the bent of its nature, to set in with the first eruption, to decrease on the eleventh day, and not to cease altogether until the twelfth or thirteenth, it is a bad symptom for it to disappear before the first-named of these days, inasmuch as since the swelling of the face, through which

a share of the morbific matter is evacuated, always disappears on the same day, the simultaneous arrest of the salivation poisons the patient with the venom of the putrescent variolous matter, and as there is no other passage for its expulsion, the patient is brought to the threshold of the grave; his only remaining hope being that the swelling of the hands may be of such an amount, as to save him from the jaws of death. This sometimes takes place. The swelling of the hands sets in later than that of the face, and consequently lasts longer.

The salivation which is here of such importance and necessity, is much promoted by the patient taking free draughts of weak small beer, or of any other liquor which neither heats nor sweats.

52. But besides this, the vehement ebullition of the blood wherein the present disease far surpasses the last, must be allayed, and the ptyalism must be kept up; this sort of evacuation being necessary for the complaint. To this end narcotic medicines are preferable to any other whatsoever. They appear, indeed, from their power of thickening the fluids, to be opposed to the necessary salivation: but from this prejudice I have long been disabused. I have used narcotics in the confluent small-pox, and in every instance, provided that the patient had arrived to puberty, I have found the event justify the practice. As to the blood of infants and of children, who, for the most part, sleep well throughout all the stages of the disease, it is less hot, and less requires a check of the sort in question. Besides which, by the use of narcotics, the diarrhœa is stopped. This hurts the patient, since a diarrhœa is the particular evacuation which Nature sets up with young subjects.

53. With grown-up persons, paregoric remedies, if used frequently, have this advantage. In the first place, they bring on a gentle sleep, by doing which they restrain and guard against the violent ebullition of the blood, and the chances of a fever in the brain. Secondly, the swelling of the hands and face, the pre-eminent evacuation which Nature uses in this disease, proceeds more regularly. Thirdly (and this is a point which tends much towards the security of the patient), instead of the swelling of the face subsiding prematurely, and so endangering life, it is frequently, by the action of narcotics, sustained properly and kept up until the due time that Nature

requires. The fervour of the blood is mitigated, and the inflammation radiates towards the hands and face, indeed towards the whole surface of the body, according to the character of the disease, and with benefit to the sufferer. Lastly, the ptyalism itself is promoted. In some cases, indeed, from the effects of so thickening a medicine as opium, it may be delayed for a few hours. Nevertheless, as if Nature had taken fresh strength from the delay, she eventually rouses her energies, and carries the matter through successfully.

I have also observed, that a salivation, which has decreased about the eleventh day, or even earlier, and which by doing so has put the patient in great peril, may be reproduced by the repeated administration of paregorics, and may be so kept up by them, as not to cease before the fourteenth day, and sometimes not so early as then. Hence, I generally prescribe fourteen drops of liquid laudanum, there or thereabouts, or else an ounce of syrup of poppies, dissolved in cowslip water, or in some similar distilled water. This may be taken by adults, after the full eruption of the pustules, every night, until the end of the disease, not only without their being at all harmed by it, but, on the contrary, to their great advantage. This I have learned from frequent experience. It is, I think, a good plan to give this same paregoric a little earlier in the day than usual, since it is easy to see that in the worse sort of smallpox, it is towards the evening that what may be called the *hot paroxysm* generally comes upon the patient, distressing him with restlessness, anxiety, and other symptoms. Now, by taking a paregoric about six or seven o'clock in the evening, this can be, in some degree, guarded against.

54. In the confluent smallpox, diarrhœa is as constant a symptom with infants, as ptyalism with adults; these two evacuations being the methods that Nature adopts respectively, in eliminating the morbific matter. Now, to stop the diarrhœa in one case, is as absurd as to check the ptyalism in the other. The misplaced endeavours of misguided women in stopping such diarrhœas, have caused the deaths of many thousands of infants. It is a wrong notion to imagine that because a looseness is dangerous in the distinct smallpox, it is dangerous in the confluent sort as well. It should be known that it is only prejudicial where the evacuation is through pustules. This it

is in the distinct disease; in the confluent the bowels are the natural outlet by which Nature seeks relief. I leave, then, the diarrhœa to take its course. I assist Nature as Hippocrates bids me. I recommend the infant to be sometimes left in its cradle, sometimes taken out of it. If it have been weaned, I allow it the same diet as I have already allowed adults.

55. During the last days of the disease, when the face is well nigh stiffened with dry, hard, and crusted pustules, I smear it over pretty frequently with the oil of sweet almonds. This is for the sake of letting the hot effluvia exhale freely, as well as to alleviate the pain caused by the stiffness.

As to guarding the face against being disfigured by the scars, I try nothing at all. The only effect of oils, liniments, and the like, is to make the white scurfs slower in coming off. These it is that, after the patient has left his bed, and whilst he is beginning to gain a little strength, by succeeding and displacing each other, leave behind the foul marks of the disease. These however, are not much to be feared, when, by reason of a moderate regimen, the pustules have not been much exasperated, and no causticity has been contracted.

56. Now, although this method, if prudently applied and accommodated to the particular circumstances of the case, will prevent all irregular and dangerous symptoms, and render the disease safe and mild, yet I am forced to proceed in a different manner with certain symptoms which I shall now relate, and which, whatever may be the cause from which they may have arisen previous to my being called in, I must remove and conquer.

57. In the first place, then, if in the distinct sort the regimen has been so hot, and the sweats have been so continuous, that the face of the patient has not begun to swell by the eighth day (the pustules being sufficiently thick; only flaccid, and with the interspaces of a pale colour)—in such a case I strive with might and main for a more temperate regimen, and to restrain the orgasm of the blood. With this view I order a narcotic at once. Unless the brain be overheated, this will procure a gentle sleep, and temper the uncurbed violence of the blood. By doing this, it will determine the blood and heat to the face, a result which is both seasonable and natural to the disease.

58. But if the mischief that has been thus caused be gone

so far, as for the sweat which has hitherto flowed profusely, to stop of itself, for the patient to be seized with a frenzy, for him to complain of an excessive sickness, for him to pass little though frequent urine; when matters are thus far gone, and death is at hand, I expect help from no remedy whatever, except only from either the free exhibition of narcotics, or from a large blood-letting, the body of the patient being exposed to the air. And this which I here propose will not appear so very rash and improbable, if we consider how many, even within the iron clutches of death, have been saved by sudden and abundant hemorrhages from the nostrils. This, too, must be remembered, that in this extreme agony, it is not because the pustules strike in (they often are both red and prominent at the last gasp), that death comes on apace, but because the face fails to swell. Now I suppose that no one will deny that venesection and moderate cooling will temper the blood, whilst whatever tempers the blood will promote the swelling of the face. Narcotics do the same, and they do it on the same principle.

59. I do not say that in every case of brain fever, the most frequent symptom in smallpox, venesection is to be recommended at once. It is only proper when it comes on because the face has not swollen, and this in the distinct sort, and when the pustules are pretty abundant. It is also proper when, on account of a hot regimen and cordial treatment, the blood is so angered and uncontrollable as to be wholly out of rule. In such cases it may be brought down to its proper temperature by paregorics and the other medicines of the same intention. When matters are thus far gone, the physician must think more of what is due to his conscience than of the peril to his credit; must make up his mind to bleed in the manner aforesaid; and must order his patient to be restored by fresh air. To effect this fully, I have often, in such fits of frenzy, thought it fit for the patient to be got out of his bed for a little while; and, by so doing, I have freed many from death. Over and above what I have seen with my own eyes, there are numberless instances of this on record—of men snatched from the very jaws of the grave. Sometimes a patient thus frenzied has, with the extraordinary cunning of persons so afflicted, escaped the charge of his nurses, slipped out of bed, and exposed himself to the cold air, and that even during the night. Sometimes

he has got cold water, either clandestinely or by earnest entreaty to the nurse, and drank it off. In either case, by a happy error, a life that had been despaired of has been saved.

60. I will trouble the reader with a single instance, which I got from the person concerned in it. He went to Bristol whilst in the flower of his youth, and was seized about the middle of summer by smallpox. Brain fever came on afterwards. The nurse went out into the town and left him to the charge of others, saying that she would soon be back. However, she stayed beyond her time; and the man (as seemed to the lookers-on) died in the interim. The bystanders, being afraid that the corpse would soon become putrid, and looking both to the heat of the weather and the stout corpulent make of the supposed dead man, raised it from the bed, and laid it on a table, with nothing over it but a sheet. Soon after, the nurse came back, heard what had happened, and went into the chamber as the assistant at a sad ceremony. When, however, she raised the sheet, and saw the man's face, she fancied that there were some faint signs of life; and so put him back to bed. Following some device of her own, she brought him back to life, and within a few days saw him a sound man.

61. To return, however, to the question—if, from the previous heat, the saliva be so viscid and feverish as almost to suffocate the patient (and this, about the eleventh day, is often the case) a gargle becomes necessary. This must be thrown into the mouth and fauces several times, both night and day, by means of a syringe. It may be made of either thin small beer, or barley-water with the honey of roses. Or it may be as follows:

℞ Elm-bark, ʒvj;
Liquorice-root, ʒss;
Raisins (stoned), xx;
Red rose-leaves, two handfuls.
Boil down to half a pound in a sufficient quantity of water.
Then dissolve in the strained liquor,
Simple oxymel,
Honey of roses, āā ʒij.
Mix, and make into a gargle.

If, however, the patient have been treated properly, the ptyalism, even though it have begun to be diminished, will do its work properly, and there will be no need of this remedy.

And, in truth, when matters are so far gone as for the patient to be in danger of instantaneous suffocation, when he is overwhelmed with stupor, and when his breathing is stopped on every side, the remedy itself cannot safely be relied on—the patient is at the last gasp. In this case, I have sometimes given an emetic of the *crocus metallorum*. This must be done in large doses of an ounce and a half; inasmuch as, from the stupor of the patient, a smaller one would not act. Instead, however, of so acting, it might just agitate the humours that the patient is unable to get rid of, and so endanger his life. And even this remedy is uncertain. It is a sad thing to say; but so severe is the symptom, and so generally does it take off all who thus die on the eleventh day, that a remedy to meet it has yet to be discovered.

62. The other symptoms that occur in smallpox, inasmuch as they can be guarded against by a moderate regimen, can be removed by the same. Thus, the aforesaid frenzies, which arise from the over-heating of the brain, are cured by anything that cools the blood; whilst the same method relieves coma also, opposite as the two diseases may appear. Coma arises from an obstruction in the *cortex* of the brain, when the hot steams of the blood are driven thither violently and abundantly by the heat of the regimen and medicines.

63. By this same cooling of the blood I have also seen the crimson spots removed; but neither by this, nor by any other line of treatment whatsoever, have I ever seen either hematuria or violent eruptions of blood from the lungs at all arrested. Each of these two forms of hemorrhage (as far as my observations have hitherto extended) is an undoubted presage of death.

64. In the suppression of urine which sometimes occurs in young and vigorous subjects, and which arises from a great confusion and disorder of the animal spirits (these being subservient to its secretion, and partaking in the agitation of the heated blood and humours), I have had recourse to the whole tribe of diuretics in vain. Nothing has answered so well as to take the patient from his bed, to support him on the arms of the bystanders, and to walk him two or three times round the chamber. Do this, and he will speedily pass his water abundantly, and be much relieved by doing so. I can call, as evidence to this, many of my medical friends, who have been

recommended by me to make the same experiment, and who have found it succeed.

65. All the symptoms that arise from the striking-in of the variolous matter, either from excessive cold or from undue evacuations, are to be removed by the use of cordials and by proper regimen. Neither, however, must be continued beyond the continuance of the symptoms. The chief of these are the flattening or falling-in of the pustules, and the occurrence of diarrhœa; and that in the discrete species. In the confluent form they mean nothing, being in the nature of the complaint. Neither is the diarrhœa of infants serious; since it brings relief rather than danger. In each of these cases we may give a cordial draught of the distilled waters with diascordium, liquid laudanum, or the like. This we may do, not only for the removal of the symptoms, but during any period of the disease; provided that the patient complain of pain and distress in the stomach. However, to speak the plain truth, symptoms arising from the cold treatment are very rare indeed, compared with those that are due to the opposite practice—a practice which does much more mischief, and takes much less blame. It is my own opinion, that the common talk about the frequency of the retrocession of the pustules in the confluent smallpox arises from a false view of their depressed character. This is attributed to the resorption of the variolous matter; and the resorption of the variolous matter is laid to the charge of the cold. Now, the depression in question is nothing but the nature of the disease. In the distinct smallpox the same notions are abroad. Here, however, men fail to remember that Nature requires time for the ripening of her fruit, and they look for the eruption and development of the pustules before they are due.

66. When the patient is convalescent, when the pustules are falling off, and a few days after he has been allowed meat, i. e. about the one-and-twentieth day, I deem it requisite to draw blood from the arm in those cases where the disease has been violent. The inflammation that has been impressed upon the humours of the patient (man or child) requires bloodletting, just as the colluvies of the intestines of similar origin requires a purge. This is clearly shown both by the character of the blood, which, when the disease has been strong, is pleuritic, and by the violent inflammations which settle in the eye. Nor are

these all. There are other dire effects from the over-heat and depravation of the blood. Men who were heretofore of athletic strength have been constrained during the remainder of their days to struggle against complaints in the chest and elsewhere; parts upon which the hot and acrid humours have showered down like rain.

If the pustules have been few, bleeding is unnecessary. After bleeding I order a purge, to be repeated three or four times.

67. When the patient has recovered from an attack of the confluent smallpox, and when he leaves his bed every day, he sometimes suffers from a troublesome and painful swelling of the legs. This either goes off of itself after bleeding and purging, or is easily removed by the application of emollient and discutient herbs; e. g. mallows, mullein-leaves, elder-leaves, laurel-leaves, chamomile-flowers, or melilot-flowers boiled in milk.

Thus much concerning the history and treatment of the smallpox of these two years. In order to distinguish it from that which succeeded, I shall call it the *Variolæ legitimæ*.

CHAPTER III.

THE CONTINUED FEVER OF THE YEARS 1667, 1668, AND PART OF 1669.

1. I NOW speak of the fever which predominated during the variolous constitution which I have just written on. It set in along with the smallpox, and stood and fell with it. The character of the complaint was as follows. The patient suffered pain about the pit of the stomach, and was unable to bear the pressure of the hand upon that part, a symptom which I remember to have noted only in the present disease, and in smallpox. Headache, heat over the whole body, and petechiæ supervened. On the other hand, there was no thirst. The tongue was like that of a healthy person, except that it was sometimes white, rarely dry, never black. From the very beginning of the disease the patient broke out into profuse spontaneous sweats, but without being relieved by them.

Whenever these were the results of heating remedies and a stimulant regimen, there was danger of a brain fever. Besides this, the number of petechiæ increased, and all the other symptoms became aggravated. The secretion of urine was natural from the first, and this passed for a favorable sign. Nevertheless, it was, in reality, as little beneficial as the sweats which have just been noticed. With unskilful treatment the disease generally became exceedingly protracted. Unlike other fevers, it neither ceased of itself, nor went off by means of a crisis. On the contrary, it distressed the patient (unless he died first) with the severity of its symptoms for seven or eight weeks together. Occasionally, however, and towards the close, ptyalism would set in, and that freely. This, unless arrested by either other evacuations, or by over-stimulant remedies, would carry off the disease. A consummation so wholly beyond our hopes most usually took place when no notable evacuations had previously taken place, and when refrigerant medicines had not been administered.

2. This fever originated in that particular epidemic constitution of the atmosphere, which, at the time in question, produced the smallpox. Hence, with the exception only of those symptoms which were the necessary effects and consequences of the eruptions, it was, if not identical, at least closely akin to the smallpox. Each disease set in similarly. In each there was the same pain upon pressure over the pit of the stomach. The colour of the tongue and the colour of the urine were alike in the two complaints. The profuseness and spontaneity of the sweats occurred equally at the commencement of both maladies. The common tendency to salivation was also equal. It occurred during the fever, when its heat and violence reached beyond a certain intensity. It occurred during the smallpox, when the pustules became confluent. Finally, as the fever was most rife at that particular time when the ravages of smallpox were greater in these parts, than at any other time within the limits of my own observation, there can be but little doubt as to the identity of character between the two diseases. Of this I am certain—all those practical phenomena which determine treatment were the same for the two diseases, with the single exception of the eruption of the smallpox, and of its effects. There was, of course, no parallel to this in the

fever. Of this I satisfied myself by very accurate observations which I made during the treatment of the two disorders. For this reason, although no man dislikes the coining of new names more than myself, I may, perhaps, be allowed to designate the present fever as the *variolous fever*, from its likeness to the smallpox or variola.

3. Much, however, as the fever might resemble variola, no man in his senses believes that it is to be cured by exactly the treatment of variola. In the smallpox, the inflamed particles are ejected and eliminated by means of small abscesses. In the fever, by means of salivation exclusively. As for the sweats, which, at the beginning of the disease, flowed profusely, they were symptomatic rather than critical. Nature intended nothing but salivation. Sometimes, indeed, she perverted even this salivation into either a looseness or a sweating; into a looseness, which arose when the inflammatory rays were carried down along the mesenteric arteries into the intestines, and there solicited them to excretion (a process which occurs in pleurisy and other inflammatory fevers, through the orgasm of the heated particles of the blood, and their efforts to become cooled), and into inordinate sweatings, when such accompanied the present fever, just as they accompanied the variola, and in both cases in accordance with Nature. By such evacuations, symptomatic as they really were, the salivation which was *not* symptomatic, but which was meant to be critical, was diverted elsewhere, so that unless Art could suggest some other evacuation, the disease would run on for some months, instead of being like other fevers, and undergoing concoction.

4. In order, however, to go farther into the subject, for the sake of rightly understanding the nature of this fever, and with the view of placing on an immoveable foundation a superstructure of curative indications, it must be remarked, that in that fever which was rife and common during the constitution wherein intermittents were epidemic, the matter which had to be separated from the blood was so thick, that it could not be separated without previous digestion. This disposed it for a due evacuation at a due time, and for one which took place either in the way of increased perspiration, or critical dejections. Hence, all that the physician had to do was to accommodate his treatment to the disease in such a manner that there should be, on

the one hand, no such ebullition as might give rise to dangerous symptoms, nor yet, on the other, so little effervescence as to be unable to expel the morbific matter; since fevers are the instruments which Nature has framed for such secretions.

5. Again. In the plague there is a matter to be separated from the blood. But this is of such subtile and inflammable parts, that when in their highest degree of intensity, they pass through the blood, they do it in the twinkling of an eye, with the quickness of lightning, and too suddenly for ebullition to take place. Then it is only in some gland, or some external part, that they are caught and stopped. When this takes place, they are entangled, and so draw the parts around them first into inflammation, and afterwards into an aposteme. And an aposteme is Nature's contrivance for ridding the flesh of things that are hostile to it; even as a fever is a corresponding contrivance for dissipating the bad part of the blood.

In the case of an aposteme, it is the duty of the physician to regulate the evacuation of the pestilential matter through the proper outlets that Nature has contrived. And this he does; unless, indeed, he believe that he can substitute for the outlet of Nature some other evacuation over which he shall have a better control, and which shall be his own rather than Nature's. Now, just in the same way does Nature proceed in expelling the matter of smallpox. Notwithstanding its thicker and grosser nature, it is evacuated by means of pustules scattered all over the body, these doing the work of buboes and carbuncles. Here also, as in the plague, the curative indications are to be directed towards the regulation of the evacuation according to its natural outlet.

6. In the present sort of inflammatory fever, the gross matter of the fever described above, which could only be expelled after previous digestion, is not found; so that we waste our labour when we strive to obtain such a digestion by promoting effervescence. Nay more, there is great danger in so doing. We may stimulate a disease of which the *essence* is already too violent an inflammation. Furthermore, as Nature has constituted for the present fever no evacuation in the way of an eruption,—much as it may resemble smallpox (where, as in the plague, there *is* an eruptive evacuation),—it follows, of necessity, that our whole object must be to allay the inflammation

by means of evacuations and cooling medicines. Upon this principle, I attack the disease, and I attack it successfully.

7. As soon as I am sent for, I bleed from the arm, unless there be great weakness, or the patient be old. I repeat the bleeding twice, at intervals of two days, unless I see signs of convalescence. The intermediate days I order an injection of milk and sugar (or something of the kind), and, also, the following julep. This last is to be taken frequently throughout the whole course of the disease.

℞ Purslain-water,
Lettuce-water,
Cowslip flower-water, āā ℥iv;
Syrup of lemons, ℥iss;
Syrup of violets, ℥j.
Three or four ounces to be taken several times a day, *ad libitum*.

Whey, barley-water, and similar light drinks, are what I allow in ordinary; barley-broth, oatmeal-gruel, panadoes, roasted apples, &c., being the solid food. All meat-broths, even chicken-broth, I forbid.

8. Above everything else, I order that the patient be not confined to his bed for the whole time. He must be up for a great part of every day. In this fever, as in pleurisy, rheumatism, and all those inflammatory diseases which are best combated by venesection and refrigerants, I have found that even the coolest of the one and the freest of the other are of no worth at all, if the patient be kept continually to his bed. The heat burns him up, especially in the summer time. Hence the sweatings, that were occasionally profuse, deterred me neither from this cooling method, nor from cooling medicines combined with removal from the bed; for although a man may fairly promise himself great advantage by taking his indications from those things which generally do good, experience is, in the present case, against him; and it is by experience that I have been taught that the patient not only gets no good from his sweats, but that, on the contrary, he is over-heated; so much so, that often pleurisies, petechiæ, and other symptoms of the worst sort succeed. And these arise less from the malignity of the disease, than from the badness of the treatment.

9. If it be argued against me that the present method of treating fevers is altogether opposed to the theory of those writers

who, with one voice, proclaim aloud that it is by diaphoresis that fevers are most properly and most naturally got rid of, I have, over and above the evidence of constant experience in this particular fever, thus much, besides, in my favour. I assume that all those learned men who call out for diaphoresis as the remedy to fever, mean that diaphoresis where the sweats are a secretion of some humour lurking in the blood previously digested; and that in the elaboration and preparation of this same humour, so that it may be eliminated by diaphoresis, Nature is employed for a definite and determined period. The fact, however, is far different. It is at the very onset of the malady that the sick man is dissolved in sweat, and this alone is a great part of the disease. Indeed, if we are to put any faith in the phenomena, this disease appears to depend more upon the mere heat and fervour of the blood, than upon any humours lurking in the blood, and requiring to be expelled, after due concoction, by sweatings. If, on the other hand, we suppose that in this fever, as in others, there *is* some humour which digestion has to ripen, why are we to humour Nature with cordials and a hot regimen, so provocative of diaphoresis? She is over busy already; and it is our duty to reduce her irregular efforts. The old axiom applies as well to sweats as to stools—*cocta, non cruda, sunt medicanda.*

10. During this constitution I was called in to Dr. Morrice, who then practised medicine in London with the same credit that he now does at Petworth. He had this fever, with sweats and spots. By the consent of other physicians, mutual friends, he was bled, and then got up, having first wiped away the sweat. He used a cooling diet and medicines, and was presently relieved. The violent symptoms soon went off. Continuing in the same treatment, he was well within a few days.

11. But to return to the question. The looseness, which often accompanies this fever, does not divert me a single hair's breadth from my plan. I have even found that nothing is so effectual a check as venesection and cool drinks, like whey, barley-water, &c.; since it is caused by inflammatory vapours passing from the blood, through the mesenteric arteries, into the intestine, and there causing irritation.

12. This method has succeeded admirably in the cure of this disease; and it seems the method that is pre-eminently appro-

priate to it. I cannot, however, gainsay the cures from a treatment wholly opposite. Cordials and a hot regimen have been applied, and the patient has been freed from his disease. Still, I think that there was unnecessary risk. The petechiæ, which otherwise were very few, came out by this means very numerous. The thirst, which generally gave little or no trouble, became distressing. The tongue, which was otherwise moist, and, except in being a little paler, much the same as the tongue of a healthy person, grew dry under the regimen, and often even black. Lastly, those very sweats, which were so anxiously forced by means of cordials, were driven in by the cordials themselves, and stopped. Too much serum was given out at first; so that at length the blood failed in its supply of it. What should have been diluted grew thick; and then the patient withered up, shrunk at the surface, and, indeed, suffered everything that he should not suffer from the fever. At last, after the blood had been replenished with moisture from the *ingesta*, partly under the effect of medicines, and partly from the nature of the fever itself, it threw out, at one and the same time, the fresh serum and the disease. Now a crisis like this is a forced crisis, and, as such, hazardous. But the worst of all is, that it rarely takes place at all.

13. It has been stated above, that this fever, and its twin sister the smallpox, may go off in salivation. This is always a good sign. I have seen with my own eyes the fever go off as the salivation came on, and even true purple spots disappear. When such a salivation has set in, no other evacuation must be attempted, either in the way of bleeding or in the way of clysters. This may divert the humour elsewhere. Whey, and similar refrigerants, are the best promoters of the salivation; just as, on the other hand, cordials, and similar heating medicines, thicken the matter, and obstruct its elimination.

14. Whilst this fever still survived, a diarrhœa, unaccompanied by any manifest febrile symptoms, was prevalent. It was worst in '68. At that time the constitution was tending towards the dysenteric constitution, which I shall describe as the character of the next-coming years. Nevertheless, I consider this to be the same fever with the variolous fever now rife; although it took another form, and exhibited itself with a fresh symptom. It was clear to me that chills and rigors preceded

the diarrhœa. It was also clear, that the diarrhœa itself depended on the same origin with the fever. Hence I think it probable, that this fever arose from the inflammatory rays turning inwards towards the intestines, and so provoking them to expulsion. The blood, in the meanwhile, was freed, by this diversion, from those disorders which otherwise would have been caused by such rays. Hence it remained free and unhurt, and exhibited no outward signs of fever. Besides this, the patient could not bear the pit of the stomach to be touched by the hand —a symptom common to both the fever and the smallpox of this constitution. This we have already stated. The same pain and the same tenderness would sometimes extend itself outwardly to the epigastrium, and this would end in an aposteme, and kill the patient. All this made it as clear as the light of day that diarrhœa was of the same nature and essence with the dominant fever; and this opinion is confirmed by the effect of venesection, and the cooling medicine, regimen, and diet, which I found so advantageous in the fever. They cured the diarrhœa as well; whilst, if treated upon a different principle, with rhubarb or lenitive cathartics (given with the view of expelling those acrid juices which were supposed to irritate the bowels to such secretions), or even astringents, it changed its character from a mild disease to a deadly one, a fact that is sufficiently proved by the bills of mortality for the year. And so much for the epidemic diseases which depended on this constitution.

SECTION IV.

CHAPTER I.

THE EPIDEMIC CONSTITUTION OF PART OF THE YEAR 1699, AND OF THE WHOLE OF 1670, 1671, 1672, IN LONDON.

1. At the beginning of the year 1669, the cholera morbus, and the gripes without stools, as well as dysentery, having appeared but sparingly during the last ten years, began to set in sharply. The cholera morbus I had never known to be so epidemic. Nevertheless, during the very year when it was prevalent, it was limited to the month of August. There were few cases in September. However, the gripes without stools, lasted till the end of autumn. They accompanied the dysentery. Indeed, of the two, they were the most rife. When the winter came, the gripes disappeared, and never came back during the remainder of the years of the present constitution, however severely the dysentery might continue to rage, and however truly it was epidemic. The reason for this I consider to be as follows. The constitution had not yet become fully and perfectly a dysenteric constitution, so as to produce all the symptoms of dysentery in all instances alike. Next autumn, when the gripes came, they were no longer the gripes without stools. They had all the concomitant pathognomonic symptoms of dysentery.

2. Between these gripes without stools and the aforesaid fluxes, which were each so general, there was a new form of fever, associated with both the diseases, which attacked not only those who had suffered from either, but even those who had withstood the two. In a few cases, perhaps, there were slight gripes superadded, sometimes dry, sometimes with motions. This fever was, up to a certain point, the fever that not unfrequently accompanied the two diseases, and hence we

may call it by the distinctive name of the *dysenteric fever*. It chiefly, as will be shown hereafter, differed from dysentery, in respect to its character, in being without the continued evacuations of that complaint, and in not possessing those symptoms necessarily dependent upon such evacuations. As the cold of winter approached, the dysentery accommodated itself to the season, and withdrew. The dysenteric fever, however, raged all the more. Smallpox, too, appeared in some few places, but in a mild and manageable form.

3. Quite at the beginning of the next year, as early as the first month of it, the measles set in. These increased day by day. Few familes, and almost no children, were unattacked. They increased gradually until the vernal equinox. Then they retreated just as gradually also. By June they were quite gone, and were never again seen during the whole of the years of the present constitution, with a few exceptions. In the very next, and exactly at the same time, they appeared here and there in a few isolated cases.

4. Now, these measles prepared the way for a form of smallpox, which was hitherto new to me. Its phenomena were wholly irregular, utterly unlike those of any of my former observations, and far distant in character from the smallpox of the preceding constitution. This will be shown in the forthcoming account of it. At present I shall call it the *anomalous smallpox of the dysenteric constitution*. This form of smallpox, although, during the first year, far less frequent than the measles, still attacked numerous individuals, occurring epidemically until the month of June. *Then* was the time for the dysenteric fevers. As autumn approached (by the approach of autumn I mean August), the dysenteries returned upon us, raged far and wide, and were more destructive than they were even the year before. However, as in that year, they gave way to the cold of the winter, and as they gave way, the dysenteric fever and the smallpox raged throughout the season.

5. But about the beginning of the February of the next year, each disease decreased; but then there came a tertian ague to make up for them. This, without being exactly epidemic, was still more common than I found it to be at any other period within my recollection, since the date of that constitution which

I have mentioned above as being so favorable to it. Like other spring intermittents, it had disappeared by Midsummer. At the beginning of June the dysenteric fevers took their place as before. As the autumn advanced, the dysentery for a third time returned. When winter had come, it made way for the dysenteric fever and for the smallpox. These did havoc during the whole season. The dysentery, however, of that autumn was more limited than of the previous one. That seems to have been the time of its height.

6. We have already stated, that, at the beginning of each particular year, some disease or other raged as an epidemic—measles in the beginning of 1670, and tertian agues in the beginning of 1671. We have also remarked that, by the predominance of these complaints, the activity of the smallpox for the first months of the year was limited, so that it never broke its boundaries. But now, at the beginning of 1672, these barriers were removed. The smallpox was predominant and exclusive; and, by consequence, it was epidemic as well. This was till about the beginning of July. Then set in dysenteric fevers. In August came the dysentery, for a fourth time, and the fevers gave way. Now the dysentery of this fourth year was not only less common than the dysenteries of the years before, but it was also milder in its symptoms: indeed, as there were occasional cases of smallpox, it was difficult to tell which of the two diseases predominated. My own view is, that the atmospheric constitution was unfavorable to dysenteries, but that it was sufficiently favorable to smallpox to put the two complaints on a level; so standing in contrast with the constitutions of those years wherein, during the month of August, dysenteries had made general havoc. The winter, as was its wont, banished the dysenteries; but not either the fever or the smallpox. This last disease, when the dysentery was gone, was paramount, and kept so throughout the winter. Nay more; next spring, and even at the beginning of summer, it was to be found here and there, although in a far milder form than the former of its kind.

7. Now, when I say that just as one nail drives out another, so does epidemic drive out epidemic, I do not mean that the disease which is expelled and which retreats disappears altogether; I only mean that it decreases in frequency. During

this constitution both diseases were to be found, each beyond the season that it was suited to. Thus, dysentery is a disease of autumn. Nevertheless, a few persons—very few—suffered from dysentery during the spring.

8. We have, then, sufficiently proved, that throughout the whole of this constitution dysenteric fevers set in about the beginning of July; July being to fevers what February is to agues. Next, that as the autumn advanced, the dysenteries—diseases truly autumnal—succeeded; that these were dispersed by the winter, and that then came dysenteric fever and smallpox; that this smallpox not only wore out the winter, but that it extended itself into the subsequent spring and the succeeding summer; and that, lastly, the second July brought in the epidemic fever, and excluded the variola. This was the sequence of the changes under the constitution in question.

9. I may further observe that, just as an individual case of an epidemic has its proper periods, its stages of increase, crisis, and decline, so also has the constitution in general, which determines the epidemic: that is, proportionally to the time of its predominance, it has definite periods; it increases from day to day in its epidemic extension; it reaches its height; it then decreases at the rate of its increase; and, lastly, it dies away altogether, making room for a fresh constitution. The symptoms are, each and all, severest at the beginning; they then gradually decline; whilst at the end of the constitution they have become as mild and tolerable as is compatible with the nature of the disease to which they are referred. This is shown by the fluxes and the variolæ of this constitution; and it will be shown still better in the sequel. I now proceed to describe in detail the diseases of this constitution, taking them in the order of their occurrence.

CHAPTER II.

CHOLERA MORBUS OF THE YEAR 1669.

1. This disease, which, as is said before, had, in the year 1669, spread itself at large more than in any previous one, seems partial to a particular part of the year. It sets in at the end of the summer and the beginning of autumn, as truly as the swallow comes in spring, or the cuckoo sings in summer. In the character of its symptoms it is not altogether unlike the common cholera of intemperance and drunkenness, which may occur at any season. Neither is its treatment very dissimilar. Still it is a disease of another family. Its presence is understood at once. There is vomiting to a great degree; and there are also foul, difficult, and straining motions from the bowels. There is intense pain in the belly, there is wind, and there are distension, heartburn, and thirst. The pulse is quick and frequent, at times small and unequal. The feeling of sickness is most distressing; and is accompanied with heat and disquiet. The perspiration sometimes amounts to absolute sweating. The legs and arms are cramped, and the extremities cold. To these symptoms, and to others of a like stamp, we may add faintness. The disease terrifies the lookers-on; and sometimes proves fatal within twenty-four hours. Besides this, there is dry cholera, characterised by flatus from both above and below, but without either vomiting or purging. Of this, however, I remember only a single case, and that was at the beginning of the autumn of the year in question, a time when the common sort was most common, and presented itself in the shape of a whole host of diseases.

2. By careful reflection, by observation, and by the results of a manifold experience, I have thoroughly convinced myself that to expel the acrid humours, the focus of the malady, by cathartics, is just to add fuel to flame. The mildest operation of the mildest purge disturbs the whole system, and induces fresh commotions. On the other hand, by checking the impetus of the disease at its onset, I should wear out the patient by an intestine war; since I should just confine the enemy to his seat

in the bowels, should impede the natural evacuations, and detain those humours which were seeking for an outlet. For these reasons I keep a middle course. In part I evacuate the humours; in part I dilute them. By these means I reduce the disease to a manageable form. I have done so as often as it has occurred; and the plan of treatment has been tried by me for many years, and, as such, approved.

3. Boil a tender chicken in about three gallons of spring water, so that there be little or no relish of the flesh. Of this let the patient take several basinfuls whilst warm; or, if this cannot be had, posset drink. At the same time, inject a good quantity of it up the bowels by successive injections; so that partly from above and partly from below the whole may be taken in; and after that, thrown out. Mix with both the draughts and the clysters about an ounce of the syrup of lettuce, violets, purslane, or water-lily. Yet this is not absolutely necessary. The draughts and clysters will do their work single-handed. By means of these the belly is filled, and, as it were, turned topsy-turvy, by a vast bulk of liquor; and hence the acrid humours are ejected, or, if not ejected, are brought down to a due temperature.

4. This washing-out takes three or four hours. When it is done, the following draught finishes the cure:

℞ Cowslip-water, ℥j;
Aqua mirabilis, 3ij;
Liquid laudanum, ♏xvj.
Mix.

Instead of this, any common narcotic may be substituted.

5. Now this method of diluting the humours is much safer and shorter than the common practice of evacuants and astringents. These are fraught with danger. They make the intestine turmoil both sharper and fiercer. They turn things upside down. They keep the enemy to his quarters; and they change him from a visitor to a denizen. Besides this, the disease is prolonged, and there is danger in the delay. Vicious humours creep into the blood. Ill-conditioned fever is excited; and the patient suffers not only a severe disease, but a long one also.

6. If the physician has not been called until after the patient

has been purged, and vomited for some hours—say ten or twelve—so that he is exhausted, and cold at the extremities, the remedies aforesaid must be laid aside. Laudanum must be his sheet-anchor, and it must be resorted to at once; it must be given whilst the symptoms are urgent, and it must be given when the symptoms have abated; it must be given night and morning, until the patient has recovered his full health and strength.

7. This disease, however much it may be epidemic, very rarely occurs beyond the limits of the month of August, the month in which it begins. This makes me admire the beautiful and subtle mechanism of Nature in the determination of the origin and the decline of epidemics; since even, although the same causes, viz. the abundance of fruit, are common to the months of September and August, the effect is different.

Now, whoever carefully studies the phenomena of the true and legitimate cholera morbus, the only form with which we now have to deal, will certainly own that, although produced by the same causes, and accompanied by the same symptoms, it differs from that sort of common cholera which may occur at any time of the year. The two diseases are as far as the poles asunder. It seems as if, in the air of the particular month of August, there were some hidden and peculiar property, which impressed, either on the blood or on the bowels, some specific alteration, adapted to this disease, and to none other.

CHAPTER III.

THE DYSENTERY OF PART OF 1669, AND OF THE WHOLE OF 1670, 1671, AND 1672.

1. Gripes without stools (dry gripes) set in at the beginning of August 1669, and they were quite as common as, if not commoner than, the dysentery of the same autumn. Sometimes they were attended with fever; sometimes not. The gripings of the dysentery of the season answered to the gripings of the present diseases. Both sorts were most severe; both sorts came on at intervals, and both sorts were unaccompanied by motions, either slimy or stercoraceous. The dry gripes went along with dysentery throughout the whole autumn, and at the same rate; but, as stated above, they were not present during the remaining years of the present constitution. Now, as this form of gripes differed but little from the dysentery, either in its nature or treatment, I confine myself to the last-named disease.

2. I observed that, now as ever, the epidemic dysentery set in at the beginning of autumn, and declined at the approach of winter. When, however, the character of the year was of pre-eminently dysenteric constitution, it attacked a few patients at any time; most, perhaps, at the beginning of the spring, or even earlier, if there was a sudden thaw. Few indeed suffered; yet those few have convinced me that, in a season so little dysenteric of itself, the state of things most conducive to the disease was the state just mentioned. So it was during the years of the predominance of the dysentery. At odd times, men were attacked even at the end of winter, or the beginning of spring.

3. The disease sets in with chills and shivers. After these come the heat of fever, then gripings of the belly, and, lastly, stools. Occasionally there is no fever; in which case, the gripes lead the way, and the purging follows soon after. Great torment of the belly, and sinking of the intestines, whenever motions are passed, are constant; and these motions are frequent, as well as distressing, the bowels coming down as they take

place. They are always more slimy than stercoraceous, fæces being rarely present, and when present, causing but little pain. With these slimy motions appear streaks of blood, though not always. Sometimes, indeed, there is no passage of any blood whatever from first to last. Notwithstanding, provided that the motions be frequent, slimy, and attended with griping, the disease is a true bloody flux, or dysentery. In the meantime the patient, if a young man, or if heated by cordials, is feverish. His tongue is whitish, and coated with thick mucous fur; if the disease be violent, it is dry and black. The strength is depressed, the spirits are low, all the symptoms of an ill-conditioned fever are present. And there are not only great pain and distress, but there is danger also. Unless the treatment be skilful, life is in peril. The vital warmth, and the due spirits may be impaired by the frequency of the evacuations before the peccant matter can be ejected from the blood; hands and feet may turn cold; the patient may die as quickly as from an acute disease; and even if he escape the fate this once, he may be exposed to numerous and distressing symptoms of different sorts. For instance, when the disease has made certain progress, there will appear in his motions, instead of the mere bloody filaments which were at first mixed up with the fæces, pure blood, in large quantities, free from even mucus, and in every evacuation. This indicates the corrosion of some of the larger vessels that spread over the intestines, and it threatens death. At times the intestines, from the force of the inflammation which has been produced by the over-abundant afflux of hot and acrid matters upon the affected parts, have been struck with incurable gangrene. Aphthæ, too, towards the close of the disease, beset the inner parts of the mouth and the fauces, particularly when the body has been long overheated, and when the evacuation of the peccant matter has been checked by astringent remedies, administered before the application of cathartics. These are generally signs of imminent dissolution.

4. If the patient get over the aforesaid symptoms, and if the disease be protracted, the intestines become affected successively downwards, until the whole mischief is forced down to the rectum, and ends in tenesmus. Then the effect of stercoraceous fæces is wholly different from what it was in dysentery. It is

intensely painful. The fæces, as they pass, scrape the bowels in their tender state; whereas, the slimy dejections only irritate the rectum, whilst the matter which is there, and there alone, engendered is evacuated. This disease, although not unfrequently fatal to adults, and still more so to old men, is nevertheless exceedingly harmless with infants. They will bear it for months together without suffering, provided only that Nature be left to herself.

5. I cannot say how far the dysentery of Ireland agrees or disagrees with the dysentery which I have just described; inasmuch as it has not come under my notice. Neither can I say how this present dysentery may stand in comparison with the *English* dysenteries of other years. Just as there are various forms of smallpox, and of other epidemics, one for one constitution and another for another, one for one mode of treatment and another for another, so may there be divers forms of dysentery. Nor is this any wonderful *lusus naturæ*. All own that the more we look deeply into the ways of Nature, the more does there shine forth before us her wonderful variety, as well as the divine machinery of her operations. And these things are so far above our comprehension, that the man who shall take upon himself to measure them all by his mind, searching into the details of the manifold operations of Nature, will fail and fall—fall like Phaeton.

"Magnis excidet ausis."

Still he will fall. And more than this; even if he inquire rightly, all that he will get as reward for his best discoveries will be a measure of abuse, and that because he is the first inventor.

6. Furthermore, it must be observed, that all epidemics, when they first leap into life, emerging from the lap of Nature, as far, at least, as their essence is discoverable in their phenomena, are combined with a principle more spirituous and more subtile than that which they possess when they have grown their growth: and that, just as they decline from their strength, they become thick and humoral. Whatever may be those particles which are mixed with the atmosphere, which war against health, and which determine the epidemic constitution, it is certain that they have a greater power of action at the time of their first outbreak

than at any time afterwards. During the first months of the prevalence of the plague, scarcely a day passed without some one being attacked by the contagion, being taken suddenly in the streets, being stricken wholly without warning, and dying at once: whilst, when the disease had come to maturity, no one was ever so suddenly prostrated, but what fever, and other symptoms, gave him warning. From this it is abundantly clear, that the disease was more violent and acute in its infancy, than it was at a later stage. It killed, to be sure, fewer; but then it killed them by means of a more violent influence on the system.

7. It was the same with the flux. The earlier the stage the worse the symptoms. Looking, indeed, to the *number* of persons afflicted, *that* increased as the disease approached its climax, or status, and, for that reason, more died of it than at its beginning. But looking at the severity of the symptoms, *they* were the worst at the onset; worse, then, than at the status; and worse, then, than during the decline. So that other things being equal, the *proportion* of those whom

Ἕλλαβε πορφύρεος θάνατος καὶ Μοῖρα κραταιή,

was greatest at first. Moreover, the longer the disease lasted, the more it became humoral. Thus; during the first autumn, many patients had no purging at all; whilst, in respect to the severity of the gripings, the intensity of the fever, and the sudden prostration of strength, the flux of that year was, by a long way, ahead of the fluxes of the following ones. Even when the dysenteries of the early years were accompanied by purging, they appeared to be of a more subtile and spirituous character than their followers; the straining and pains when at stool were greater and more frequent; and the dejections themselves, especially when fæcal, were strange and scanty. Just in proportion as the disease developed itself, the gripings generally decreased, and the dejections were more stercoraceous. At last, when the constitution itself was on the wane, the gripes were scarcely felt, and the motions were more fæcal than slimy.

8. To come, however, to the curative indications. After I had diligently and maturely weighed in my mind the various symptoms which occur during this disease, I discovered that it was a fever—a fever, indeed, of a kind of its own—turned

inwardly upon the bowels. By means of this fever, the hot and acrid humours contained in the mass of the blood, and irritating it accordingly, are deposited in the aforesaid parts through the meseraic arteries. Hence, the vehement rush of blood and humours striving for the same outlet; hence the enlargement of the orifices of the vessels; and, hence, the passing of blood by stools. In the meanwhile, there is a constant effort on the part of the intestines towards the expulsion of the irritating humours; and, thence, the mucus with which they are naturally coated is carried off by the different motions—sometimes freely, sometimes sparingly. The indications, then, were plain; and I had nothing else to do but to cause, as soon as possible, a revulsion of the acrid humours by venesection, by which I tempered the remaining volume of blood, and, then, to draw off the aforesaid humours by purging.

9. This, then, was my method. As soon as I was sent for, I bled from the arm, and ordered a paregoric for that night, and my usual lenitive cathartic for the next day.

℞ Tamarinds, ℥ss;
Senna-leaves, ʒij;
Rhubarb, ʒss.
Boil with water quant. suff. Add to three ounces of the strained mixture,
Manna,
Solutive syrup of roses, āā ℥j.
Mix, and make into a draught; to be taken the first thing in the morning.

I prefer this potion to any electuary made of rhubarb, where the rhubarb is in small quantity. Although rhubarb is particularly adapted for cholera, and for the evacuation of any acrid humours, nevertheless, unless, by being mixed up with a little manna, syrup of roses, or something of the sort, it be of a sufficient quantity to ensure a free catharsis, it is not worth much in fluxes. Yet, since it is clear that even the mildest laxative, mere eccoprotic medicines, increase the cramps of the belly, and cause both dejection of spirits and general disorders to the patient, (and that through the additional commotion which they excite, during their operation, in the blood and humours,) I am in the habit, in cases of dysentery, of following the purgative with an anodyne rather earlier than is done in

other cases. So I give it at any hour during the afternoon, provided that the purge have done its work; and so I check the commotion that I had originally excited. I order, however, the cathartic to be taken every other day, twice more; the anodyne being given after it. And this anodyne I use on the days where there is no purging. It breaks the violence of the symptoms, and gives me time for the elimination of the peccant humour. It generally consists of the liquid laudanum, in doses of sixteen or eighteen drops, out of some cordial liquid.

10. After the first venesection and catharsis, I recommend, throughout all the stages of the disease, a mild cordial; either plague-water, or the compound water of scordium, or else something similar; e. g.:

Water of black cherries,
Water of strawberries,
Plague-water,
Compound scordium-water,
Cinnamon water with barley, āā ℥j;
Prepared pearls, ʒiss;
Crystalline sugar, q. s.
Water of damask-roses, ʒss (for flavour).
Mix, and make into a julep. Take four or five spoonfuls when faint, or *ad libitum*.

This is best used with old or phlegmatic subjects. It raises, to a certain degree, their spirits, which are pulled down by the violent purging of the disease. It patches them up. The drink is milk with three parts water, or else the so-called *white decoction*, and sometimes posset. The white decoction consists of two ounces of calcined hartshorn, and crumbs of white bread, respectively. These are boiled in spring water, from three pints to two, and afterwards sweetened with the finest white sugar. If the strength is so much pulled down as to require more than this, half a pint of canary wine, boiled along with a quart of water, and cooled, may be taken as the ordinary drink. Sometimes, too, they may be dieted with panado, and sometimes with lean mutton-broth. The older the patient, the more I kept him to his bed; and the more freely I allowed him cordial drinks. This treatment is by far the best I have hitherto met with for this disease, which very rarely lasts beyond the third purge.

11. Now, if the disease will not yield to these remedies, I give the above-mentioned anodyne every day, night and morning, until recovery; nay, frequently to make things doubly sure, I give it every eight hours, i. e. three times in the twenty-four; and that in a dose as large as five-and-twenty drops—provided that the previous doses have been insufficient. Besides which, I give a clyster of half a pint of cow's milk, and half an ounce of Venice treacle. This is thrown up every day, and is of wonderful efficacy in checking the motions. Whatever may be the fears of inexperienced practitioners, I, for my own part, have never yet seen any mischief arise from the repetition of so many opiates; although I have known cases where it has been continued for weeks. I may remark, however, that when the flux amounts only to a diarrhœa, a dose of rhubarb, given every morning, will suffice; the bloodletting and the strong purging being dispensed with. The dose must be, half a drachm (more or less, according to the strength of the patient) of the powder, made into a bolus, with a sufficient quantity of diascordium, and with the addition of two drops of the essential oil of cinnamon. Every night after this an opiate must be taken, consisting of fourteen drops of the liquid laudanum, and one ounce of barley-water and cinnamon. The diet is to be the diet ordered for dysentery; and, if wanted, a clyster is to be thrown up every day. But these observations are incidental.

12. I will quote a single case as verifying this treatment; sparing the readers many others. The learned and pious Dr. Thomas Belke, one of the domestic chaplains of the Earl of St. Albans, was afflicted with the acute dysentery which has just been described, and was cured by the remedy just recommended.

13. Infants suffering from this disease are to be treated on the same principle as adults; only with differences of degree in the amount of the bloodletting, the activity of the cathartics, and the strength of the anodyne. These must be regulated by the age. To speak in the way of illustration, two drops of laudanum are enough for a child one year old.

14. The liquid laudanum, which I have mentioned as being given in daily draughts, is prepared in the following plain manner:

Sherry wine, O ij;
Opium, ℈ij;
Saffron, ℈j;
Cinnamon in powder,
Cloves in powder, āā ʒj.

Mix, and put into a vapour-bath, for two or three days, until the liquor become of a proper consistency. Strain, and lay by for use.

I do not profess to consider that this form of laudanum has any advantage over the solid opium in point of strength. Its merit consists in being of a more convenient form, and more uniform in the action of its doses. It can be given with wine, distilled water, or any other liquid. And here I cannot but break out in praise of the great God, the Giver of all good things, who hath granted to the human race, as a comfort in their afflictions, no medicine of the value of opium, either in regard to the number of diseases that it can control, or its efficiency in extirpating them. As all forms of opium come alike from the poppy, it is an attempt upon our credulity to pretend that the virtues of narcotics in general, and of opium in particular, are due to any artificial or peculiar process on the part of the preparer. Whoever will be guided by experience, and will diligently and frequently compare the effects of the natural juice with the effects of its artificial preparations, will discover that there is no difference between them; and will be well assured that the wonderful effects of the remedy are the effects of its own natural virtue and excellence, and not due to any skill of any clever artificer whatever. So necessary an instrument is opium in the hand of a skilful man, that medicine would be a cripple without it; and whoever understands it well, will do more with it alone than he could well hope to do from any single medicine. To know it only as a means of procuring sleep, or of allaying pain, or of checking diarrhœa, is to know it only by halves. Like a Delphic sword, it can be used for many purposes besides. Of cordials, it is the best that has hitherto been discovered in Nature. I had nearly said it was the only one.

15. In this manner was the dysentery to be treated generally. It must, however, be remembered, that I have said that, during the first year of its prevalence, it was of a more subtile character than afterwards. For this reason it was not so amenable to purgatives, as to remedies which acted on the blood by diluting,

and tempering both it and those acrid humours which are thrown by it upon the intestinal canal. Hence, during the first autumn, when the dysentery was in combination with the dry gripes, I applied the following treatment in both cases. I applied it steadily, and the event in both cases justified me. But, as the cold set in, I found the treatment less efficacious; and the next and following years, when the disease had departed from the original subtilty of its character, it was wholly useless.

16. I proceeded thus. If the patient was in the flower of his age, and had fever, I bled from the arm, and, after an hour or two, I drenched him abundantly with liquids, as I was wont to do in cholera; not however, as then, with chicken-broth, or posset, but with whey. This was to be drunk cold, but to be thrown as a clyster warm, without either sugar or aught else, and in the same quantities, both ways, as in cholera. I always observed that, with the return of the fourth enema, the gripes and the bloody motions had gone. When this was finished, and the whey was used up, which was generally the case in two or three hours, provided that the patient bore the treatment, I ordered him to his bed. Here he would soon break out spontaneously in a sweat. This I refer to the whey which has been taken up in the blood, and I keep it on for twenty-four hours, but I do not force it. In the meantime, I allowed nothing but a little raw milk, which was, indeed, all that I allowed for three or four days after leaving his bed. If, from leaving off either the bed or the milk too soon, the patient suffered a relapse, the treatment was gone over afresh. Now, if this method be both sure and quick, no sensible man will reject it, because it is not recommended by a pompous apparatus of remedies.

17. That a fever, attended with such symptoms as have been described, is found in those places, and at those seasons, where and when dysentery is epidemic; and also that this method is adapted to the cure thereof, is proved by the evidence of the faithful and learned Dr. Butter, who accompanied the Honorable Henry Howard, in his embassy from the King of Great Britain to the Emperor of Morocco. In that country he observed (as he has himself told me) that dysentery was, as it always was, an epidemic disease, and also that the fever with which it was joined was the fever that I have described. This he treated both in the city of Fez and elsewhere, and he treated it just as I did

in England, always successfully, and with blacks and Europeans alike. Now, neither of us borrowed our practice of the other. In distant countries we hit upon the same. He, however, declared that, in his hands, and in those countries, the method of deluging the dysentery by liquids was the best, and I, for my own part, can easily believe, that in a hot climate, such treatment may be much more successful than in England.

18. During the first autumn of this constitution, the most excellent and learned Daniel Coxe, Doctor of Physic, suffered from a severe dysentery, and, being called in, I attended. He was cured by the treatment aforesaid. The gripes and bloody motions ceased after the fourth clyster. He was kept to his bed, limited to milk diet, and this was all that was necessary in order to restore him to perfect health. This was done in his own case, *cito, tute, ac jucunde;* and, so he himself afterwards cured others, and that within the current autumn. Next year, however, the very same treatment failed.

19. It has been stated already, that very often the disease, if it become protracted, affects the intestines from above downwards, each and all, in their order, so that, finally, it comes down with its whole force upon the rectum. This produces the continual desire of going to stool, when nothing is passed beyond some slight matters of slime and blood. When this has taken place, treatment like the aforesaid will be thrown away, so will all abstergent, conglutinating, or adstringent injections, which people are given to throw up according to the various stages of some supposed ulcer. Fomentations, hip-baths, fumigations, and suppositories, administered with like intentions, are alike useless. In simple truth, there is no ulcer in the rectum at all. The bowels, however, in proportion as they regain their strength, use it in thrusting the morbific matter downwards. This, to the rectum, is a continued source of irritation; and hence that gut is continually squeezing out that mucous matter with which the wisdom of Nature has lined it. This is the reason for giving it strength; so that, like the upper bowels, it may eliminate the relics of the disease. Now, this can only be done by remedies that give strength generally. Topical applications, of whatever sort, produce weakness rather than strength, since they are foreign to the parts with which they come in contact,

and they distress and irritate accordingly. Hence the patient must bear up, until his strength can be renewed by restorative diet, and by cordial drinks, taken freely, and in a palatable form. As this returns, the tenesmus will depart of itself, and that *pari passu* with the returning strength.

20. Sometimes, though very rarely, it happens that a dysentery, not rightly cured originally, shall afflict a particular patient for many years, the whole mass of his blood having taken, as it were, a dysenteric crasis. This creates a continuous supply of acrid and hot humours to be thrown upon the bowels; the sick man, in the meanwhile, being enabled to attend to his usual pursuit in a tolerable manner. An instance of this presented itself lately, in the case of a woman, who lived but a few doors from my own. She was afflicted with the flux throughout the last three years of the constitution. Many remedies had been tried before I saw her. I then ordered venesection, and nothing beyond. This I repeated, but repeated at intervals. I was encouraged by the blood being pleuritic, and also by the circumstance of relief being felt after each bleeding. I therefore went on with it, and restored the patient to her original health.

21. Before concluding, I must remark that, although during the years when the fluxes were thus prevalent, the aforesaid evacuations, previous to the administration of laudanum, were indispensable; in any other constitution less decidedly favorable to the disease than the present, they might safely be omitted. Then the disease could be disposed of at once by laudanum alone. Thus much for dysentery.

CHAPTER IV.

THE CONTINUED FEVER OF PART OF THE YEAR 1669, AND THE WHOLE OF 1670, 1671, 1672.

1. At the time when the dysenteries were raging, there arose a fever like that of the dysenteries. Now this attacked not only those who had been stricken by the dysentery, but those who, except that they occasionally, and very rarely, suffered from purging and dry gripes, were otherwise healthy. This fever had the same manifest and apparent causes as the flux. Its symptoms, also, were those of the dysenteric fever. Hence, if you take the evacuations by stool, and the symptoms dependent thereon, from the dysentery, the fever in question was, in its nature, a dysentery. Furthermore, during the whole course of the constitution, the alteration of the respective symptoms were the same, and so were the differential circumstances which determined the increase, the status, and the decline of the symptoms. For this reason I called the fever the *dysenteric fever*.

2. The fever in question sometimes (chiefly during the first years of its prevalence) set in with gripes, in which case they were a mild sort. Sometimes these gripes followed the fever; sometimes (and this generally) there were none at all. The sweatings, which were so copious in the previous fever, were here rare and scanty. The headache, however, was worse. The tongue, although moist and pale, as in the other kind of fever, was covered with a thick fur; this being an additional symptom. This disease rarely went off by ptyalism. The other did so frequently. Aphthæ, also, which occurred towards the departure of the complaint, were commoner now than before; indeed, they were commoner than I have ever seen them. Nothing was commoner, during the present epidemic, than the deposition of the foul and acrid matters of the blood upon the mouth and gullet, especially towards the end of the fever. This gave rise to the aforesaid symptom, which was the most constant in those cases where the disease had been obstinate and prolonged, and where the regimen had been over-heating.

It was also a symptom common to the present fever, and to the fever of the dysenteries.

These aphthæ were engendered precisely in the same way with the aphthæ which were invariably engendered during the fever which complicated the more obstinate cases of dysentery. They were the surest to appear, if, over and above the use of a hot regimen, the evacuations from the bowels had been checked by astringent medicines before the fomes of the disease had been carried off by bleeding and purging.

8. These were the most constant characteristics of the fever. The other symptoms changed with the year, being dependent on certain manifest qualities of the atmosphere, which varied with the season; also coinciding with the general progress, and the different stages of the dysentery. In order to make this clear, and in order to set in a strong light the wonderful mechanism of Nature, in the production of epidemics, I must go somewhat deeply into the matter. It must be observed, that, although the manifest qualities of the atmosphere may not impress the same influence upon all constitutions alike, so as to originate all those epidemics which are referred to it, as to their proper productive cause, they can, nevertheless, influence them for a time, so that epidemics are admitted or excluded, as the manifest qualities of the air oppose or favour them. What they originate in, is the same hidden and inexplicable condition; and here the universal constitution remains the same, whether promoted or retarded, as far as such causes are concerned.

4. Hence, it happens that when various epidemics fall within the same constitution, this or that disease raises itself above the rest, at that particular season, for which the sensible qualities of the air have ordained it. It then gives way to some other form, which the different conditions of a different season evoke. From this reason, the stationary fever, be it what it may, which is referable to the ruling epidemic of the year, is the most rife in the month of July. At that time it attacks men in whole masses. However, as the autumn approaches, it gives place to the great epidemic which is now gaining strength, and which characterises the year. At this season, the fever becomes rarer; a fact which every year verifies. The summer that has just passed heats the bodies of men, whereon the fevers that

are proper to the constitution fix themselves upon them the more readily. But as autumn approaches, the predominant epidemic again takes the reins of empire, and the fevers withdraw themselves from its influence.

5. Just as the fevers in question must refer their appearance in one month rather than another, to the particular sensible qualities of the atmosphere, so also do several symptoms, which, as far as they depend upon the general constitution of the year, are of an opposite nature, borrow some of their manifest qualities from the fever of the month; and this is the reason why, in those years where the said fevers attack many at a time, they are attended with various new symptoms, besides those which are proper to them, as proceeding from the same constitution. Nevertheless, they continue true to their original nature, notwithstanding the language of the generality. Here, by reason of the difference of the phenomena, a fresh fever is attributed to every fresh year. But such pre-eminently peculiar symptoms continue for a few weeks only. These being over, for the remainder of the year there is nothing beyond the proper symptoms, referable to the stationary fever of the particular constitution.

6. This was made clear for fever in general, and for the dysenteric fever in particular, by the July of 1671 and 1672. In the former month there were violent sickness, bile like verdigris, and a great inclination to diarrhœa throughout the whole disease. In the latter there was pain in the muscular parts of the body—especially at the joints—like the pain of rheumatism. Besides this, there was an inflammation of the fauces; like (but milder than) a quinsy. Yet both these symptoms met in the same specific fever, and each required the same treatment. They differed only in respect to their sensible qualities, and these arose from the time at which they happened. Yet their sudden and unforeseen breaking out, about the beginning of these months, and the new complexion of certain symptoms for a certain time, although they neither differed in kind, nor in the treatment required, from the fever which ran through the whole year, are strong proofs of the difficulty of distinguishing by its phenomena alone all the different forms of fever at different times. By looking, however, carefully to the other diseases of the same year, as well as to the proper symptoms of the fever, and its tendency towards

this or that evacuation, it may be done. The consideration, too, of the method or medicine, whereby it is most easily cured, conduces much toward the same investigation.

7. As to the other differences of the symptoms which accompany stationary fevers, they only have reference to the different periods of the constitution. Hence, they are either intense or remiss, as the symptoms of the other epidemics to which they belong are heightened or depressed.

8. To return to the question. This fever, which, as aforesaid, began with the bloody flux, kept pace with it, except for a short time, when it withdrew a little during the prevalence of the other epidemics of the year. Yet it continued during the whole constitution—attacking few or many, as the case might be.

9. Now as to the cure. I had observed that the phenomena of many of the sufferers from the flux were plainly the phenomena of the solitary fevers of the year. Hence, it was reasonable to attempt the cure, by an imitation, in some sort, of that evacuation, by which Nature was wont to expel those sharp and corrosive matters, which was the containing cause both of the flux and the fever that went with it. So that I proceeded with the fever even as with the flux, in respect to both the bleeding and the repetition of the purging. The only exception was in the use of paregorics. In the cases of fever these, when exhibited between the purgings, did mischief; whereas they did good in the dysentery. In the fever, they retained what should have been expelled.

On the first days the patient fed on barley and oatmeal broths, panado, and the like. His drink was small beer, slightly warmed. After having been once or twice purged, there was no necessity for denying him a little chicken, or some similar digestible meat. The purging treatment gave us a latitude in this respect which we should not have had without it. The third purge—a day between each—generally cured the disease. But not always. Sometimes fresh ones were required. If, after the fever, the strength of the patient was broken, and worn out (and this was commonly the case with hysterical women), I tried to call back the spirits by a small dose of laudanum. This remedy, however, I seldom repeated, and I never prescribed it at all until two or three days had elapsed from the last purge.

Nothing, however, was so refreshing and restorative as the free use of the air, as soon as the fever had receded.

10. The hint to this practice was taken at the beginning of the constitution. Whilst I was very thoughtfully and anxiously turning over in my mind the nature of this new fever, I was called to a young woman, who lived near me; she had a pain in the forepart of her head, which much distressed her, and besides this, the other symptoms by which dysenteric fever is overloaded. On inquiring of her how the fever had come on, and how long she had had it, I learned that a fortnight before she had suffered from the dysentery which was then so common, that this went off, either of its own accord, or from the effect of medicines, and that, after it had so gone off, the fever, with pain in the head, came on. Hereupon I conjectured that the best way of meeting these symptoms was by substituting for the flux, that had been checked, some similar evacuation. I cured her accordingly. This was treatment suited to the fevers of the constitution, and in general they yielded easily. I always consider that, in acute diseases, it is not sufficient to do what is done by the rashest of old women—prove that the treatment is good from the event being favorable. More than this is required. The disease must be conquered easily, and, as far as its nature will allow, must go off of its own accord. This, however, is by the way.

11. At the beginning of June 1672, the most noble and learned Lord Salisbury suffered from this fever, and from gripes, his belly being, nevertheless, bound. He sent for me, and was cured by the method proposed. And I needed none other as long as the fever lasted.

12. In young people, and sometimes in others a little older, this fever would affect the head. In such cases the patient was delirious; yet it was not the delirium of fever in general, viz. delirium of the nature of a frenzy. It was a sort of stupor, and more akin to a *carus*, or lethargy. This happened chiefly to those who, at the onset of the disease, were unlucky enough to have resorted to all sorts of means to force sweats. Nor was I lucky enough, at that time, to know how to relieve them; yet I tried all the noted medicines, and left no stone unturned. And so much for the fever of this constitution.

CHAPTER V.

MEASLES IN THE YEAR 1670.

1. The measles set in early as usual; i. e. at the beginning of January. They gained strength every day, until they reached their height, about the vernal equinox. After this they gradually decreased at the same rate; and by the month of July were wholly gone. As far as I have hitherto seen, I believe these measles to be the most perfect disease of their genus, for which reason I shall record their history with all the care and minuteness that the observations which I then made will warrant.

2. This disease begins and ends within the above-named period. It generally attacks infants, and, with them, runs through the whole family. It begins with shiverings and shakings, and with an inequality of heat and cold, which, during the first day, mutually succeed each other. By the second day, this has terminated in a genuine fever, accompanied with general disorder, thirst, want of appetite, white (but not dry) tongue, slight cough, heaviness of the head and eyes, and continued drowsiness. Generally there is a weeping from the eyes and nostrils; and this epiphora passes for one of the surest signs of the accession of the complaint. But to this may be added another sign equally sure; viz. the character of the eruption. Although measles usually shows itself by an exanthema upon the face, there appears upon the breast a second sort of breaking-out. This consists in broad red patches on a level with the skin, rather than true exanthemata. The patient sneezes as if from cold, his eyelids (a little before the eruption) become puffy; sometimes he vomits: oftener he has a looseness; the stools being greenish. This last symptom is commonest with infants teething, who also are more cross than usual. The symptoms increase till the fourth day. At that period (although sometimes a day later) little red spots, just like flea-bites, begin to come out on the forehead and the rest of the face. These increase both in size and number, group themselves in clusters, and mark the face with largish red spots

of different figures. These red spots are formed by small red papulæ, thick set, and just raised above the level of the skin. The fact that they really protrude, can scarcely be determined by the eye. It can, however, be ascertained by feeling the surface with the fingers. From the face—where they first appear—these spots spread downwards to the breast and belly; afterwards to the thighs and legs. Upon all these parts, however, they appear as red marks only. There is no sensible protuberance by which they show themselves above the level of the skin.

3. In measles, the eruption has not the same effect in allaying the previous symptoms as it has in smallpox. The cough and fever still continue, so does the difficulty of breathing. The defluxion and the weakness still remain in the eyes. The continued drowsiness and want of appetite all keep on as before. The continuance, however, of the vomiting I have never yet observed. On the sixth day—there or thereabouts—the forehead and face grow rough, the cuticle being broken, and the pustules[1] dying off. At the same time, the spots upon the rest of the body attain their greatest breadth and redness. By the eighth day the spots have disappeared from the face, and show but faintly elsewhere. On the ninth day there are no spots anywhere. In place thereof, the face, trunk, and limbs are all covered with particles of loosened cuticle, so that they look as if they had been powdered over with flour, since the particles of broken cuticle are slightly raised, scarcely hold together, and, as the disease goes off, peel off in small particles, and fall from the whole of the body in the form of scales.

4. The measles most usually disappear about the eighth day, at which time, the vulgar (deceived by their reckoning in cases of smallpox) insist that they have *struck in*. In reality, however, they have finished their course. Thus it is believed that those symptoms which come on as the measles go off, are occasioned by their being struck in too soon; for it must be noted, that just at the time in question, the fever and the difficulty in breathing increase, and the cough becomes so harassing, that the patient can sleep neither night nor day. Infants, especially when they have been subjected to the hot regimen,

[1] *Pustules*—so in the text of Dr. Greenhill.

and patients generally who have had recourse to hot remedies for the sake of promoting the eruption, are liable to these symptoms—symptoms which show themselves just as the measles give way. Hence, they may be thrown into a peripneumony, and this kills more patients than either the smallpox itself, or any symptom connected therewith. Yet, provided that the measles are properly treated, they are free from danger. A diarrhœa is a frequent symptom. This may succeed the disease, and run on for weeks, after every other symptom has departed; and it is of great danger to the patient, from the loss of spirits referable to the profuseness of the evacuation. Sometimes, too, after the more intense kinds of the hot regimen, the eruption grows first livid, and afterwards black. This happens to adults only; and when it *does* happen, all is over with the patient, unless, immediately upon the blackness, he be assisted by means of bloodletting and the cooling effects of a more temperate method.

5. The treatment of measles, like their nature, is nearly the treatment of smallpox. Hot medicines and the hot regimen are full of danger, however much they may be used by ignorant old women, with the intention of removing the disease as far as possible from the heart. This method, above others, has been most successful with me. The patient is kept to his bed for no more than two or three days after the measles have come out. In this way the blood may gently, and in its own way, breathe out, through the pores of the skin, those inflamed particles which are easily separable, but which offend it. He has, therefore, neither more blankets nor more fire than he would if well. All meats I forbid; but I allow oatmeal-gruel, and barley-broth, and the like; sometimes a roasted apple. His drink is either small beer, or milk boiled with three parts of water. I often ease the cough, which is constant in this disease, with a pectoral decoction, taken now and then, or with linctus, given with the same view. Above everything else, I take care to give diacodium every night throughout the disease.

℞ Pectoral decoction, lb.ss;
Syrup of violets,
Syrup of maidenhair, āā ℥iss.
Mix, and make into an apozem. Take three or four ounces three or four times a day.

℞ Oil of sweet almonds, ℥ij;
Syrup of violets,
Syrup of maidenhair, ää ℥j;
White sugar-candy, q. s.
Mix, and make into a linctus. To be taken frequently; especially when the cough is distressing.

℞ Black-cherry-water, ℥iij;
Syrup of white poppy, ℥j.
Mix, and make into a draught; to be taken every night.

If the patient be an infant, the dose of the pectoral and anodyne must be lessened according to his age.

6. He that uses this remedy rarely dies; nor, with the exception of the necessary and inevitable symptoms of the disease, is he afflicted with any superadded disorders. It is the cough which is the most distressing. However, it is not dangerous, unless it continue after the disease is gone. And even then, if it last a week or a fortnight, by the use of fresh air, and the proper pectoral remedies, it is got rid of with no great difficulty. Nay, it may go off of its own accord.

7. But if, however, the patient, from the use of cordials, or from a hot regimen, be in a condition which is by no means unfrequent after the departure of the measles; i. e. if his life be endangered from the violence of a fever, from difficulty of breathing, or from any other symptom of a peripneumony, I take blood from the arm, and I do it with remarkable success. The bleeding is proportionate to the age; but it can be applied even to infants. At times I have even repeated it. Under Divine Providence, I have saved many infants in this way, and I know of no other. The symptoms themselves occur with infants at the recession of the eruption; and they are so fatal, that they do more to fill Charon's boat than the smallpox itself. Further—the diarrhœa, which has been stated to follow the measles, is equally cured by bloodletting. It arises (as in pleurisies, peripneumonies, and other inflammatory diseases) from the vapours of inflamed blood rushing upon the bowels, and so forcing them to the secretion. Nothing but venesection allays this. It makes a revulsion of the sharp humours, and reduces the blood to its proper temperature.

8. Let no one wonder that I recommend bleeding with tender infants. As far as I have observed, it is as safe with them as with adults. Indeed, so necessary is it in some cases, that, in

respect to these particular symptoms, and in respect to some others as well, infants cannot be cured without it. For instance, how could we ease the convulsions of the teething-time of infants—which take place about the ninth or tenth month, and are accompanied with pain and swelling of the gums, compression and irritation of the nerves, and paroxysms that arise therefrom—without venesection? In such cases it is better by far than all the most vaunted specifics; be they what they may. Some of these, indeed, add to heat, and do mischief; and, however much they may have the credit of arresting the disorder by means of some occult property, frequently kill the little sufferer. At present, too, I say nothing about the immense relief afforded in the *pertussis*—or the hooping-cough—of infants by venesection. Here it leaves far behind it all pectoral remedies whatsoever.

9. What has been said concerning the cure of those symptoms which occur during the going-off of measles, occasionally applies to the treatment of them at their height. It does so when they are occasioned by an adscititious and artificial heat. In 1670, I was called in to see a maid servant of the Lady Anne Barrington's, suffering under this disease, together with a fever and difficulty of breathing, with purple spots discolouring the whole of her body, and with other symptoms of the most dangerous kind. I put down all this to the hot regimen, and the abundant hot medicines which she had used; and so I bled her at the arm, and ordered a cooling pectoral ptisan to be taken frequently. By the help of this, and by a more attempered regimen, the purple spots and the other bad symptoms gradually disappeared.

10. This disease, as stated above, began in the month of January, and increased every day until the vernal equinox. From that time forwards it decreased, and wholly disappeared in July. With the exception of a few places, where it showed itself in the following spring, it never returned during any of the years in which the present constitution prevailed. So much for the measles.

CHAPTER VI.

ANOMALOUS SMALLPOX OF THE YEARS 1670, 1671, 1672.

1. We have already said that the measles last described introduced another sort of smallpox, different from the one of which we have previously treated; a sort which broke out about the same time with the measles, viz. at the beginning of January 1669. This, although less epidemic than the measles, accompanied them throughout the time they were predominant; and when the measles ceased, the smallpox continued to the end of the constitution. Nevertheless, it gave way to the bloody flux. This was paramount. The autumn favoured it. In the winter, however, as the flux was suppressed by the cold, which was unfavorable to it, the smallpox returned. And this was the order throughout all the years of the constitution; except that during the last autumn thereof (that of '72) the constitution was fading; so that whilst it was slow to promote the dysenteries, which were then growing old, the smallpox, contrary to custom, was particularly rife. Hence, it divided this part of the constitution with the flux. And it was not easy to say which disease attacked the most persons. As far as I may guess, it was the flux which was the most prevalent.

Furthermore, just like epidemics in general, the smallpox was very severe at its first approach; and it increased day by day until it reached its height. Having passed this, it decreased gradually, both as to the violence of the symptoms, and the number of the sufferers.

2. But now I must come to the particular phenomena of the present sort. The first appearance was contrary to my previous expectation. There were considerable points of difference between the symptoms of this smallpox and that of the last constitution which I had so diligently observed. At present, however, I shall only treat of those appearances which differed from those of the other sort; omitting all that was common to that disease which I have already so largely described.

3. The distinct kind differed from the common distinct kind of the previous constitution in the following points:

Firstly. The *distinct* eruption had hitherto rarely come out before the first day. It now came out generally on the third. This, also, is the case with the confluent sort.

Secondly. The present pustules rose to a less size than the last, but they were more angry; and during the last days of the disease, when they came to maturity, were often black.

Thirdly. The patient was sometimes (though not often) attacked by salivation, as in the confluent smallpox, even when the pustules were few.

From all this it is proved that the distinct smallpox of the present year came close to the nature of the confluent, and that it partook of a more intense inflammation than is generally the case where it is so distinct.

4. As to the confluent sort, it differed from other forms observed by me in other years in many points. These I shall enumerate. The eruption appeared either on the second or on the third day. It appeared, also, in the shape of a reddish uniform swelling, covering the whole face, thicker than the swelling of erysipelas, and with no visible space between the pustules. The remainder of the body was disguised by a mass of innumerable pustules, red, angry, running together, and like a broad band. Upon this ground were scattered several vesicles, just like the vesicles of a burn, conspicuous enough in respect to size, and distended with clear serum, which flowed out plentifully when the skin was broken, the flesh underneath being black, and, as it were, mortified. This terrible symptom was rare, and, indeed, it was only during the first month of the predominance of the disease that it appeared.

5. At that time, an honest man, named Collins, a brewer, in St. Giles's parish, was one among many other sufferers, and sent for me, at the beginning of January '69. Mr. Collins's son, who was an infant, had bladders on his thighs as big as a walnut, filled with clear serum. When the skin broke, the underlying flesh looked all mortified. Soon after, the child died, and death was the lot of all those whom I ever saw with this fatal symptom.

6. On the eleventh day—there or thereabouts—a white shining pellicle covered the reddish swelling in many parts of the face, and at length became spread over the whole. Soon afterwards, this pellicle threw out a crusty shining matter, the colour

whereof was neither yellow nor brown (the colours in the usual sorts of smallpox), but of a deep red, like clotted blood. This, as the pustules ripened, waxed dark, till the whole face became steeped black, as with soot. In the other kind of confluent smallpox, the patient was in the greatest danger on the eleventh day, a day that to most of them was the last. In this kind, however, unless from immoderate heat of the regimen he could only find coolness in the grave, he commonly lived on till the fourteenth, fifteenth, and even to the seventeenth day, and if this was got over, he recovered. It must be remarked, however, that those who were marked for death by that fatal symptom of vesicles and mortification which have been described as occurring during the first month of the constitution, died within a few days of the eruption.

7. Both the fever and the symptoms in general which preceded or accompanied this kind of smallpox, were more violent than in the former, and indicated a greater inflammation. The patients were more inclined to ptyalism. The pustules were angrier, as well as much smaller; so much so, that, on their first appearance, one could hardly distinguish them from erysipelas, or from measles, if the last-named disease had not been clearly known by the day of the eruption, and by other signs enumerated in the history of measles. When the pustules fell off, the scurf stuck on for a longer time than before, and imprinted fouler marks on the skin. It is fit to be noted, that during the whole of this constitution, wherein dysentery raged as an epidemic, when the smallpox was exasperated by a hot regimen, it sometimes made its way out by means of a flux. This I had never before observed.

8. But I may remark, that this smallpox was not accompanied by symptoms thus dreadful throughout its whole course. After the second year, there was a change. The smallpox of the third year, 1672, began to grow mild, put off its blackness, and grew, by degrees, yellow, like a honeycomb, this being the hue natural to the legitimate smallpox during the period of its maturity. Hence, during the last year of the constitution, it was altogether as benign and favorable as the nature of the disease allows. Nevertheless, it was quite manifest that it was to be referred to a fresh class, both from the small size of the pustules and from the salivation, as well as from other matters.

9. However much, by reason of that ignorance of the causes of every specific difference in which we are involved, it may be impossible for us to draw up a formal reason for the differences between the present smallpox and those of other constitutions, I, nevertheless, am certain, from the several phenomena, that the inflammation was much more violent in the present than in the previous sort of variola. Hence the whole principle of treatment was to regulate, by as many checks as possible, the unbridled ebullition of the blood. Now, after the exhibition of hypnotics, as explained above, this was best done by the cool regimen, by allowing the patient the free use of such drinks as would not heat him, but would rather allay that violent heat, which in this disease, at the ripening of the pustules, harasses and dries up the patient more than in any other. Now, the *white decoction*, which is made of bread, a small quantity of calcined hartshorn, and a large quantity of water, sweetened with sugar, is good; but milk and water (one part milk to three of water) boiled is better. It is more palatable to the patient, as well as more cooling. And it is not only by allaying the violent heat which attends the fever of maturation that free draughts of liquid do good. They do good, also, by promoting the salivation, and by protracting it to a period beyond what would be the case if the patient were overheated. Besides this, I have often observed, that liquors, thus freely drunk, have succeeded so well, that by their use the smallpox, which began with the signs of the confluent sort, became, during its progress, distinct; that the pustules, which would otherwise, as they ripened, have thrown off a matter which was at first red, and afterwards black, became yellow; and, lastly, that instead of being small and angry, they were just as should be.

10. With women who have the smallpox, menstruation is frequently present. This in nowise contraindicates the free use of diluents. Indeed, if the courses do not appear at their proper times, such drinks are indicated. There is only one reason why women are endangered. The blood is over-attenuated by the heat of the disease. *Quâ data porta ruit.* It follows the guidance of Nature. It does this all the more violently when the ill-placed care of female doctors has added fuel to fire, in the shape of a hot regimen, decoctions of hartshorn, marigold flowers, and the like. On the other hand, whatever is a potent

diluent to the blood, and whatever tempers it, helps to keep in its proper state both the pustules and the swelling of the hands and face. It does not, perhaps, do this immediately; but it does check confluence. Heating remedies do the contrary. However much they may appear to have such a tendency, they are wide of the mark, inasmuch as they promote the continued flux of the blood. I have no doubt but that many women have died through this error. Their attendants have feared lest the pustules should flatten by reason of the flux of the blood, and have, consequently, tried to meet the danger by cordials and a hot regimen; and by so doing, they have destroyed the poor women. By mixing up various astringents with their cordials, they have been over busy about stopping the hemorrhage, and keeping up the pustules and the swelling to their due height.

11. Not long ago I treated a lady, equally eminent for her birth and virtues, who was labouring under an ill-conditioned black smallpox. Now, however much I forbid, at the beginning of the disease, all things by which the blood may be agitated, and that in this case, because the patient was in the flower of her youth, was of a sanguine temperament, and was suffering at the very hottest time of year, she was suddenly taken, on the third day of the eruption, with so profuse a flow of the courses, and that at an unusual time, that the women about her fancied that she must have miscarried. And this symptom lasted violently for several days. Nevertheless, I did not think fit to intermit the drinks of milk and water that I had at first prescribed. I even ordered them to be taken more freely. This I did throughout the disease, and more especially when the fever of maturation was coming on. At that time, that very learned and candid physician, Dr. Millington, formerly a fellow of the same college with myself, and now my very good friend, joined in consultation; and he, perceiving that, considering the nature of the disease, all things went well, readily consented that our patient should go on drinking the aforesaid liquors, and that freely; since she frequently declared that they were both cooling and agreeable to her; that they refreshed her, and that they promoted the spitting. When, however, the face began to harden, and to be covered with a crust, we feared lest our patient should be hurt by reason of putrid vapours from the purulent matter

(which in this pre-eminently bad sort of smallpox smelt ill), and accordingly allowed a few teaspoonfuls of mulled canary wine to be taken once a day, or as often as she felt sick at stomach. With these few things—along with a paregoric draught taken every night—she recovered; having been threatened neither with delirium nor any other grave symptom —saving and excepting only the hemorrhage aforesaid. The face and hands swelled as they ought to do. The pustules were as large as the nature of the disease admitted. The salivation was easy from first to last. Lastly, however much the pustules which beset the face might, as they ripened, take a dark hue; they were, for the other parts in general, more yellow than black.

12. However great might be the degrees of heat and inflammation whereby the smallpox peculiar to this constitution might surpass the smallpox of other constitutions, experience taught me this—viz. that as long as the pustules were distinct, or even few in number, there was no need of throwing in so great a quantity of the aforesaid drinks. It was enough for the patient to drink small beer according to his thirst; and to take also oatmeal gruel, panado, and now and then a roasted apple. If he were past fourteen, he took a paregoric of diacodium, in case he either was sick, or began to grow light-headed from lying awake. This—with the exception of keeping the patient in bed—was all I did whenever the pustules were few. And by this method alone my dear son, William Sydenham, was, under God's blessing, recovered from the smallpox of the distinct sort, of which he was ill, in the December of 1670.

13. I have nothing more to add concerning the smallpox of this constitution. It differs from the sort which I have described at large, only in being hotter and more inflammatory. This made it the more necessary to restrain the intense heat which was natural to it, and which threatened to burn up the patient.

CHAPTER VII.

THE BILIOUS COLIC OF THE YEARS 1670, 1671, 1672.

1. Throughout the whole of these years the constitution determined the blood towards the deposition of hot and choleric humours in the bowels. Hence the bilious colic attacked more than usual. Now, although this disease, being chronic rather than acute, apparently lies beyond the scope of my present work, it, nevertheless, can be treated under the class that I am dealing with. It depended upon the same disposition of the blood, and coincided in time with the mass of epidemics which were then rife. I observed that the same febrile symptoms which preceded the dysentery of the years in question, preceded this disease also. Besides which, as has been already remarked, it occasionally trod on the heels of the dysentery of the time, even after that disease had apparently finished its work, in afflicting the patient, and apparently wound-up with taking leave of him. Furthermore, where such was not the case, and the disease which it followed was not an obstinate dysentery, it was generally a fever; a fever which, having lasted for a few hours only, terminated in bilious colic.

2. Those whom it generally attacked were youths of a hot or bilious temperament; and these it attacked chiefly during the summer. The pain of the intestines was intense, intolerable beyond the worst sufferings that the most wretched of men have to struggle with. Sometimes it constricted the intestines like a bandage; sometimes it concentrated its force, and was like the boring of an auger. At times, the pain remitted; at times it came on in paroxysms. Of these the patient was aware beforehand, and showed, both by voice and look, that his pains and fears were equal. Nevertheless, at the beginning of the disease the pain was less fixed to a given point than it became during its progress; neither was the sense of sickness so constant, nor yet were the bowels so pertinaciously resistent to cathartics. The more, however, that the pain increased, the more it fixed itself to a point. And then the vomiting became

more frequent, and the constipation more obstinate. And this last symptom proceeded until its violence (unless arrested by remedies) determined a total inversion of the peristaltic motion, and ileus. Then are cathartics transformed into emetics, and even enemata are carried upwards through the whole tract of the intestine, and expelled by the mouth, fæces and all. The matters thus ejected, if unmixed and natural, are either green or yellow, or of some other irregular and unusual colour.

3. Each and all of the phenomena of this disease evidently show that it originates in the elimination upon the intestines of some acridity, either as a humour or as an exhalation. Hence the primary indication for its cure is the evacuation of that humour; of that which is antecedently in the veins, as well as of that which, as the containing cause of the disease, is shut up in the intestines: whilst the next in order is the coercion of the rush of the humours thitherward, along with the assuagement of the intolerable agony, by means of anodynes.

4. Upon these grounds, I order a free bleeding, and, three or four hours after, the exhibition of an anodyne. The next day I prescribe a lenitive cathartic. This I repeat two days after. Sometimes a third is required, but this is regulated by the amount of the humours that is left. Now, it must be observed, that in those cases where the disease has originated in either an improper indulgence in the fruits of the season, or in any other form of indigestible food, the stomach is the first thing to be dealt with. This must be washed out with posset, which posset will be again thrown up by vomiting. This having been done, an anodyne must be taken. The next day a vein must be breathed. The remainder of the treatment must proceed in the order I have already explained.

5. The violence, however, of the pain, and the extent to which the action of the bowels is inverted by vomiting, may resist the action of cathartics. In this case, we must put out our whole strength. Half measures will be hurtful. Mild cathartics will go for nothing, except with very tractable bowels. For these we must look out. Medicines which will not pass through the intestines do more harm than good. They disturb to no purpose. The vomiting and pain increase. The best cathartic in such cases, is a lenitive infusion of tamarinds, senna, and rhubarb, with a little manna and syrup of roses. This creates

least commotion amongst the humours. Now, when, either on account of the patient's aversion to medicine in a liquid form, or from a tendency to vomit, a draught cannot be kept on the stomach, we must have recourse to pills. Of these, the *pilulæ cochiæ* are the ones that I like best. Both in the present case, and in all others, they act, and act steadily. When, however, the weakness of stomach is so great that even pills are thrown up, I order an anodyne in the first instance, and, a few hours afterwards, a cathartic, the interval being sufficient to allow it to lie in the belly long enough to communicate its purgative effect, and not to be overruled by the anodyne. Then, when the effect of the one is over, that of the other begins; although the purge (if it could be done) is best given a long time after the anodyne. For twelve hours after taking it (the anodyne) the patient's bowels are slow to move, and answer but sluggishly to the cathartic.

6. In this, as in most other diseases where narcotics are indicated, a purge always increases the pain. It does so, at least, when its operation is over; for whilst it is in effect, it often goes easier with the patient. Hence it is my practice to throw in an anodyne as soon as the activity of the cathartic has ceased. This I order to be taken night and morning every day, at mid-time between the purges. And this is done for the sake of more surely assuaging the pain, until the purging shall have done its work fully and effectually.

7. As soon as the purging is over I administer an anodyne, the night and morning following. This does all that is now left to do—it restrains the orgasm of the humours. Sometimes I have to repeat it, and that oftener than once. Indeed, when the pains are of a more violent nature, nothing but a full dose, repeated, will do. Mischief of a certain amount is more than a match for a medium dose. As long, therefore, as such pain continues, so long is it safe to repeat the anodyne. When the pain has ceased, the case is altered. Hence I regulate my practice by the pain, and repeat the narcotic until it either ceases or grows mild, allowing, however, time between the doses sufficient to determine the effect of each, and looking to the probable effects of a first before the superaddition of a second. Generally, however, unless the pain be excessive, a paregoric, night and morning, is enough. My usual formula is that of

the liquid laudanum above mentioned.[1] Of these, sixteen drops in a cordial distilled water is a dose, and it may be increased in case the pain is immoderate.

8. This is both the simplest method, and the one which, with me, has succeeded the best. The peccant humour is first got rid of by bleeding and purging, and then rest is insured by an anodyne. Your carminative enemata are merely so much fresh irritation. Instead of accomplishing their object, and eliminating the humours, they prolong the disease by disturbing them. Nevertheless, I must make one observation of importance. Much as I have insisted upon the necessity of both bleeding and purging preceding the application of sedatives, there *are* cases, occasionally, where both must be omitted, and where we must start with a narcotic. Thus, in cases where free evacuations, referable to some previous ailment, have immediately preceded the colic, further catharsis is not only superfluous but prejudicial. It creates new commotions, and disturbs things afresh. And that such previous purging is not rare, we may collect from the extent to which debility of intestines, caused by either an access of heat, or an immoderate draught of fermented liquors, has subjected the convalescent from some other disease to an attack of colic. Of those cases where the patient has drenched himself with clysters before he sent for the physician, I say nothing. Either on these grounds, or on account of the advanced stage of the disease, narcotics are the starting-point.

9. In the month of August, 1671, the most noble Baron Annesly, who was suffering some days from bilious colic, accompanied with intolerable pain, and frequent desire to vomit, sent for me to see him at Belvoir Castle. He had already tried all kinds of clysters, and other remedies to boot; and these had been ordered him, by the most learned medical men of the parts around. I made no difficulty in prescribing the repeated exhibition of narcotics after the plan described. By the use whereof he mended every day, and returned along with me to London a healthy man.

10. Since, however, the pain has pre-eminently a tendency to return, all occasions for its so doing must be cut off by the exhibition of an anodyne, twice a day, for some days. And if, as

[1] Chap. III, § 14. [G.]

is sometimes the case, as often as the narcotic is omitted, the pain come on afresh, there is nothing that I have hitherto been able to think of that is so certain a means of effecting a thorough cure as riding on horseback, or in a carriage, in the case of long journeys. In the meanwhile, an anodyne must be taken regularly, night and morning. By exercise of this kind, the matter that sets up the disease is brought down to the habit of the body, and the blood, being comminuted by the perpetual agitation, is depurated, as it were, afresh; whilst the bowels themselves, by the excitation of the native heat, are not a little strengthened and restored. I am not ashamed to own that, by calling in to my aid this sort of exercise, I have, more than once, thoroughly cured the disease, when I had been unable to cure it otherwise. It must not, however, be tried before the patient has been duly and sufficiently purged, and it must not be given up until after several days.

11. A poor neighbour of my own, who is still living, was, during the years in question, afflicted with a most violent bilious colic, which he had tried in vain to subdue by purges, clysters, and by swallowing leaden bullets. I ordered him to use narcotics frequently. This he did, and as often as he did so, found himself relieved. The disease, however, was only palliated, not cured. It returned when the virtue of the anodyne was spent. So I took pity on the poor man, and lent him a horse out of my own stable, in order that he might take a journey after the manner prescribed. After having travelled a few days, his bowels grew strong enough to enable him to throw off the relics of the disorder. In this way he was thoroughly cured without the use of anodynes.

12. To speak of things as they really are, I found that this sort of exercise has been used with good success in most other chronic diseases. The patient, however, must persevere in it resolutely. If we consider that the lower belly, wherein lie the organs of secretion is shaken up by it, to the extent of some thousand succussions a day, we may easily conceive how it may be enabled thereby to shake off any of the recrementitious juices there impacted; and also that it may be so strengthened by that powerful excitation of the native heat, that it shall duly do its work in the office which Nature has assigned it—the depuration of the blood.

18. If the patient be young, and of a hot temperament, I order a cooling thickening diet, such as pulp of barley, panado, and the like, and every third day, if the stomach be craving, I allow a tender young chicken, or a boiled whiting. I also allow no other drink than small beer, or milk-and-water. More than this I rarely do, unless the riding, which is so necessary in restoring health, demand a fuller diet, and more generous drinks, for the sake of making good the loss from the exhaustion of the spirits by reason of the exercise.

14. Furthermore, observation proves that when the disease, from bad treatment, has harassed the patient for a length of time, so that the bowels become languid, and the body be all but worn out by extreme loss of flesh and debility, the free use of plague-water, of *aqua mirabilis*, or of any other water which the patient preferred when in health, will benefit him beyond all expectation. For by such means the scanty relics of the native heat and spirits are stirred up; whilst the preternatural ferment that sticks to the bowels, and that, from time to time, supplies fuel to fresh fits, is extinguished by liquors more spirituous than itself.

15. As in the cure of the disease, so it is when the disease is over. The thin diet, of which we have spoken, should be kept to for some time. The present disease has a greater tendency to relapse than any other. Its seat is the seat of the organs of concoction, the bowels. These are already weakened, so that even the smallest error of diet will bring back mischief at once. Hence, in this, as in all affections of the bowels, indigestible foods are to be avoided as the worst of evils; whilst even those that pass for digestible must be taken in quantities sufficient to support life, and not more.

16. An hysteric disease very like the bilious colic, both in respect to the violence and situation of the pain, affects some women. The humours also, which are vomited up, are of a yellow and green colour. I here take the opportunity of treating of this distemper lest any one take it for the bilious colic.

17. Such women as are of a lax and crude frame of body are most liable to it. So are those who have long suffered from hysteric indispositions of any other sort. Most of all, however, are those mothers who have had difficult labours, which they have but just escaped, the child having been too large for their

strength and constitution. A pain almost as violent as the pain of colic, or of ileus, seizes the region of the stomach. Sometimes it goes a little lower down. Then violent vomitings follow; the matter cast up being sometimes yellow, sometimes green. Furthermore,—I have often observed that there is a greater dejection of spirits, and more despair, than in any other disease whatsoever. After a day or two, the pain passes off, but a few weeks after returns as violent as ever. Sometimes it is attended with marked jaundice, which goes off of its own accord in a few days. When all the symptoms are gone, and when the patient seems to have recovered, the slightest mental disturbance, whether caused by anger or grief—and to this females are very liable—will bring the pain back again. The same will be the case after walking, or any sort of exercise taken too soon. From these and the like causes, in lax and weak frames, arise the *vapours*: by which word I mean, just what the vulgar mean. Be they real vapours, or be they convulsions of particular parts, the phenomena are the same.

18. These vapours (or these convulsions), when they have invaded any particular part of the body, produce symptoms coincident with the symptoms of the part affected. The disease which they produce is one and the same in all cases. Yet it imitates in a masterly manner each and all of the diseases of humanity. This is shown by the particular affection before us. If it settle in the parts near the colon, it imitates, to a nicety, the bilious colic. And so in respect to other parts. It may affect one of the kidneys, and there shall be violent vomiting. It may follow the course of the ureters, and look like a calculus; and this may be exasperated by clysters, and by lithontriptics, and by other remedies used for forcing away the stone. At times, contrary to its usual habit (it being for the most part free from danger), it may kill the patient. I have seen symptoms of hysteria that were exactly the symptoms of stone in the bladder; indeed, it is not long since I was called up in the night to visit a countess, who lived near me, and who was suddenly seized with a violent pain in the region of the bladder, and with a suppression of urine. Having discovered that she was subject to a variety of hysteric ailments, I thought that the disorder might be other than what it seemed to be. I therefore stopped her maid from throwing up a clyster that she had prepared, lest

the disease should be increased. Instead of which, and instead of the emollients, such as the syrup of marsh-mallows, and the like, which the apothecary had brought with him, I ordered an anodyne. This soon removed the symptom. Indeed, there is no single part of the body, either inward or outward, which is wholly beyond the attacks of this disease. The jaws, the hips, the legs, may each suffer. In all cases it excites violent pain, and, when it goes off, it leaves a tenderness behind it, which will not bear touching, and which is just as if the flesh had been bruised by a sharp beating.

19. Now as I have said something in the way of a digression, relating to the history of the hysteric colic, with the view that it may not be mistaken for the bilious colic, I will also, in the way of a digression, touch on some points connected with the cure of the pain, which is its concomitant symptom. As for the radical cure, which removes the disease by removing the cause, it is a question for a different speculation in a different place.

20. Venesection and repeated purges, which are plainly indicated in the beginning of bilious colic, find no place in this disease, except in the case which will be mentioned below. Experience tells us, that the pain is exasperated, and that all the symptoms are increased by the tumult that such remedies create. Hence I have, more than once, remarked, that the repetition of even the mildest clysters has introduced a continuous series of fresh symptoms; and common sense confirms experience. The disease in question is referred to an ataxy, and an inordinate motion of the humours, rather than to any corruptiou of them; a fact which becomes clear, when we consider the several circumstances to which it generally owes its origin. These are large and undue losses of blood, violent emotions of either the mind or body, and the like. All this indicates that those remedies should be proscribed by which the perturbation of the spirits may be excited; and that, in their stead, anodynes should be exhibited, however much the green and disorderly matters of the vomit may appear to indicate the contrary. The colour of vomited matters is too subtle a matter to serve as the grounds of any speculation in favour of the propriety of evacuations which are naturally prejudicial. I have not a shadow of doubt but that, by blunders of this sort, the disease, which, notwithstanding the pain it creates, does not endanger life, has

frequently proved fatal. Add to this, that if the strongest emetic be taken one day, with the view of clearing off the foul matter of the stomach, whether green or of any other colour, there will be just as much vomiting the next day, of just the same matter, of the same colour, as before.

21. Nevertheless, it must be observed, that sometimes there is so great an abundance of blood and humours as to resist the influence of narcotics, (however frequently administered,) in allaying the orgasm of the system, unless, previous to their exhibition, either a vein have been breathed, or a motion procured. This I have observed to be commonest in women of a hot, and in women of a masculine habit; and as often as it is observed, we must prepare the way for the anodyne, by either bleeding or purging, or both. When each, or either, of these preliminaries has been tried, a moderate narcotic will do the work. Without them, a large one will be thrown away. This, however, rarely happens. If it do, the medicines must not be repeated. When the bleeding and purging have been duly used in the way of preparation, the anodynes are to be given after the method that has been prescribed in bilious colic; that is, they must be given rarely or frequently, according to the persistence or the recession of the pain. This method has reference only to the present and instant relief of the excessive pain. As to the removal of the cause of the disease, I do not undertake to treat upon it in the present place.

22. Now since this disease, both in hypochondriasis and in hysteria—diseases of which (as will be shown elsewhere) the principle is the same—very often ends in jaundice, and, besides this, departs just in proportion as the jaundice advances, it strikes me as a proper remark to observe that, in the treatment of this sort of jaundice, cathartics must be wholly omitted. If used at all, they must be in the shape of rhubarb, or something equally mild. There is danger lest purging excite new tumults. If so, all the symptoms may return. In this case, then, there is nothing whatever to be done. The jaundice depends on the hysteria. As such it will go away of itself, and, within a short time, wholly disappear. If, however, the jaundice be slow to move off, we must have recourse to remedies. This is what I am wont to use:

℞ Madder-root,
Turmeric-root, āā ℥j;
Greater celandine,
Tops of the lesser centaury, āā one handful.
Boil, in equal parts of Rhenish wine and spring-water, down to two pounds. Strain, and dissolve in the strained liquor
Syrup of the five roots, ℥ij.
Mix, and make into an apozem; of which take half a pound warm, night and morning, until recovery.

23. When jaundice comes on of itself, without being preceded by colic, we must order, in addition to the aforesaid alteratives, cholagogues, i. e. medicines which bring away the bile in stools. These must be given once or twice before the patient begins with the preceding apozem. Afterwards, too, he must take the same once a week during their use. Thus—

Electuary of rose-juice, ʒij;
Rhubarb, finely powdered, ʒss;
Cream of tartar, ℈j;
Syrup of chicory and rhubarb, q. s.
Make into a bolus; to be taken the first thing in the morning, and to be washed down with a draught of Rhenish wine.

Now if, after continuing these medicines for some time, the disease still remain obstinate, recourse must be had to chalybeate waters, such as those of Tunbridge. These must be drunk fresh from the spring every morning until the patient recover. Thus much concerning the diseases of this constitution.

SECTION V.

CHAPTER I.

THE EPIDEMIC CONSTITUTION OF PART OF THE YEAR 1673, AND OF THE WHOLE YEARS 1674, 1675.

1. About the beginning of July, 1673, a fresh species of fever set in. Nevertheless, as the constitution was not yet so exclusively disposed to its propagation as to shut out altogether the diseases of the constitution preceding, the fever in question was not very epidemic. Indeed, that form of smallpox which began during the year 1670 had not ceased; although its occurrence was less frequent, and its symptoms more mild. The two maladies went together *pari passu*: neither being excessive. A few cases of dysentery still showed themselves; so that the old constitution was not so far abolished as to supply no instance of the old forms of disease, and the new one was not sufficiently confirmed to exterminate such instances as stood over.

2. Throughout the present autumn, and throughout the whole of the winter, the smallpox went hand-in-hand with the fever; neither being excessive, and the fluxes being all but gone. Nevertheless, during the month of November, there was a sharp frost that lasted a few days, followed by a more sudden and unexpected return of warmer weather than I ever remember at that time of the year. There then appeared a few cases of dysentery. And so there did, here and there, about Christmas time. These were the last flashes of an expiring lamp. With them the disease (so far, at least, as it was of the species in question) died away altogether.

3. The next years the measles appeared, and that prematurely; as early, indeed, as the month of January. They were fully as epidemic as the measles of 1670; these last beginning

in January also. They found their way into every family, attacking children most. Still they were less regular, and less in accordance with the typical forms of the particular disease, than the measles of the year preceding; upon which points of difference I shall treat more at large in the proper place. They kept on increasing until the vernal equinox; after which time they gradually decreased. By Midsummer-day they had disappeared.

4. Just as the epidemic measles, which set in during the year 1670, introduced the black smallpox, which has been described above, so did the measles of the present year introduce a smallpox of a similar sort also. The preceding smallpox, after the second year of its constitution, produced pustules lighter and less black in colour, and fuller in size. Becoming more and more regular as the constitution proceeded, they were, by the year 1673, quite natural, i. e. considering the nature of the disease, mild and favorable. Now, however, the disease was as virulent as ever, and the accompanying symptoms of the worst kind. This sort of smallpox gained ground during the following autumn; indeed, it run into the winter; and as that season was much warmer than the previous one, the disease was encouraged. As a colder season approached, it gave way, and made room for the fever.

5. This fever, which had lasted throughout the whole year, spread its ravages far and wide in the July of 1676. As the autumn approached, it attacked the bowels, and exhibited the symptoms of either dysentery or diarrhœa. At times, it was unaccompanied by any such symptom. It then attacked the head, rendering the patient heavy and dull. The smallpox, in the meanwhile, which had affected a few here and there, had wholly disappeared by the autumnal equinox, attacking scarcely a single individual. Now it was that the fever had the predominance, taking the lead of the other maladies of the year. It must be observed, nevertheless, that as this fever was more inclined to throw off the morbific matter on the bowels, and as it often excited dysentery, and, oftener still, diarrhœa, it gave rise to the notion that the gripings which did so much mischief arose from these two diseases; whereas, in reality, they were to be imputed to the fever. Every one, however, who had any practice among the sick, knew the predominance of the fever,

and knew also that the aforesaid dysentery and diarrhœa were symptoms rather than essential and primary diseases.

6. This was the course which was held by the fever, throughout the autumn. Sometimes it attacked the head, sometimes the bowels. It everywhere put on the symptoms of the particular part affected. Such was the case till the end of October. At that time, the weather, which had been as warm and as mild as summer, suddenly changed to wet and cold. This brought on coughs and catarrhs, which were more numerous then than ever I remember them to have been. What, however, is of more importance, is the fact, that upon these coughs supervened the stationary fever of the year; and this, having once taken its hold, increased, and varied in some of its symptoms from the fever of the previous part of the year. The attack of the previous fever had been chiefly determined towards the head and bowels. That of the present was towards the lungs and pleura, and, as such, gave rise to the symptoms of pneumonia and pleurisy. This was the case, although the fever of the July preceding had never changed its symptoms at all until such time as the catarrhs above mentioned made their appearance.

7. These catarrhs and coughs continued till the end of November; and when November had elapsed, suddenly decreased. The fever, however, remained as before, just as it was before the catarrhs. Nevertheless, it was less of an epidemic, and its symptoms were different, these having been dependent on the catarrhs. Furthermore, as the catarrhs receded, the smallpox appeared here and there sporadically; and it was, in kind, of the same virulent sort as the form that had gone before. Yet the symptoms—at least by the end of the second year—were less violent than at its first onset. How long this constitution will last is more than I can say. All that I know is what I know well; viz., that, up to the present time, it has been exceedingly anomalous and irregular, and that all the diseases which have originated from it have been the same.

I will now treat of the epidemics of this constitution in the order in which they succeeded each other.

CHAPTER II.

THE CONTINUED FEVER OF THE YEARS 1673, 1674, 1675.

1. This, like the other epidemics, manifestly showed that those symptoms, with which it was associated at its onset, were the signs of a greater amount of inflammation, and of an inflammation of a more spirituous kind than was the case after the disease had made progress. During the first years of its attack, and during the following spring, there supervened upon the fever the symptoms of pleurisy, and the blood which was drawn from the veins resembled (at least for the first or second drawing) that of pleurisy. Yet, as the disease became more advanced, these symptoms of a more intense inflammation abated.

2. Over and above the symptoms which are common to fevers of all sorts, the following occurred in the present. Generally, the patient was afflicted with severe pain of the head and back, with stupor, with pain, and a sense of tension in the limbs, joints, and whole body, like that in rheumatism, but somewhat milder. During the first days there were alternations of heat and cold. At times, at the commencement of the disease, there was a tendency to slight sweats. When the fever took its natural course, the tongue was neither dry nor very different from its usual colour, except in being rather whiter. Nor was there much thirst. If, however, the patient was heated beyond the usual amount of fever, the tongue became dry to a great degree, and yellowish-brown in colour. The thirst also became intense, and the urine, which otherwise was natural, became deep red.

A fever with these symptoms, if skilfully treated, left the patient about the fourteenth day; if very obstinate, it lasted till the twenty-first.

3. Amongst the symptoms of this fever, the most conspicuous was an affection akin to coma. Patients who were attacked by it were stupid or delirious, dozed for weeks together, and were awakened only by the loudest noises. When roused, they just opened their eyes, took their food or medicine, according to custom, dozed again, and, sometimes, sunk into a complete loss of voice.

4. Recovery, when the patient returned to himself, began to take place about the twenty-eighth or thirtieth day; the first sign of which was an unnatural longing for some sort of strange and unusual food or drink. The head remained unsteady for some days, nodding this way or that. This, along with other signs, proved that it had been much affected; however, as the strength returned, the symptoms abated.

5. Sometimes it was less of a sleep than an incongruous and unmeaning muttering, just as if the patient was angry or disturbed. It never, however, arose to such a pitch of delirium and furor as is the case with smallpox and the brain fever. From such symptoms, moreover, the present differed in allowing the patient occasionally snatches of sudden sleep, when he snored loudly. Again, it was less acute, but more lasting. Lastly, it was commonest with boys and young persons; whereas the sopor of frenzy and smallpox is a symptom which is commonest with adults. Both agreed on one point. By the application of heating remedies, and by the promotion of perspiration, the mischief was transferred to the head, and the above-mentioned symptom followed accordingly.

6. When the head was unaffected, that is, when the foregoing complication neither came of itself, nor was brought on by the doctor, the disease generally terminated within the fortnight. I have sometimes seen it go off within the third or fourth day.

7. In the autumn of 1675, as stated above, this fever went off with the symptoms of either dysentery or diarrhœa. Of these, the latter was often prolonged; and with it the stupor. Each, however, was but a symptom of the fever.

8. Now as to the treatment. Immediately upon its appearance, I discovered that it was of a different class from the ones preceding. It differed in respect to many of its phenomena, and it differed in being less amenable to cathartics,—remedies which I had previously applied with great success. I hesitated more than is my wont in fixing its nature; and I was proportionally anxious about the principles of my treatment. When it first broke out, it stood alone. There was no other epidemic synchronous with it. Hence I had no analogy to direct my conjectures. The smallpox was the black smallpox of the year 1670, of which it was a remnant, mild, and all but extinct.

All therefore that remained to me was the examination of the disease in an isolated point of view. This I did to the best of my power, feeling my way, and keeping my eye on the *juvantia* and *lædentia*.

9. The racking pain in the head, and the tendency on the part of the disease to cause a pain in the side as well, taken along with the character of the blood, which was that of pleurisy, showed me at once that the inflammation was of no moderate kind; at the same time I discovered that it would not bear the same free evacuations as pleurisy. After the first or second bleeding, the blood lost the glutinous colour of its surface, and the patient received but little relief, except in those cases where the disease had passed into a true pleurisy. This it did when the treatment had been overheating; and it did so oftenest during the first spring of the constitution, the spring of 1664. At that time it approached the character of a peripneumony; being favoured by the warmth of the weather, even although it had not attained its full maturity, and was of a more spirituous nature than afterwards. Experience, however, as well as example, deterred me from free bloodletting; although it was as clear as the noon-day sun that the fever was inflammatory in its kind. Hence nothing was left, whereby its heat might be abated, except the frequent use of clysters and refrigerant medicines. Then there was, over and above the inflammatory affections, the phenomenon of stupor, so much more common in the present fever than in others. This indicated the repetition and continuance of the clysters, as a means of diverting the febrile matter from the quarter to which it was so readily determined, viz. the head. Therefore, as repeated bleedings were borne but badly by the disease, I had recourse to the above-named substitutes. These made up for the want of it; tempered the heat of blood, quietly and gradually; and eliminated the morbific causes.

10. Moreover, I judged that large blisters, applied to the back of the neck, were likely to be more advantageous in this fever than in fevers where the symptoms were less determined to the brain; inasmuch as the heat and pain of a blister acts as a derivative to the matters which would otherwise mount to the head, and brings them to the blistered parts. By these means, and by means of refrigerant regimen, the disease would

go off of itself; whilst, if treated differently, it would rage with great violence. This was made clear to me by very many observations.

11. This, then, was the course I took. I began with taking as much blood from the arm as was suited to the age and strength of the patient, and to other circumstances. At the same time, I applied a large blister to the nape of the neck. The next day I ordered a lenitive clyster. This was to be given early enough for its effects to have worked off by bedtime, i. e. at two or three o'clock. It was repeated every day, until the force of the disease was broken. I then omitted it; indeed, in all cases where the fever had gone beyond the fourteenth day, without amendment, I omitted it earlier. In this case, although the complaint had not been subdued by the previous clysters, no good was to be done by any subsequent ones. The edge was already taken off the disease, the patient was out of danger, the more violent symptoms had ceased to wear a threatening aspect, and all that remained to be done was to let the malady take its own course, and burn itself out by degrees—*suis viribus ruit*. This plan, at this time, always answered better than any violent evacuations. In the way of diet, the patient was forbidden meat, but allowed small beer.

12. Another fact still stands over for notice. Manifold experience has convinced me, that it is a point of good practice for the patient; and, consequently, it is not to be omitted in the consideration of the treatment of this disease. The patient must be out of bed for a few hours every day, and, if too weak to get up, he must put on his clothes, and lie upon it, with his head raised a little. In observing the extent to which this fever attacked the head, and in observing the inflammatory disposition of the blood, it struck me that the patient might be benefited by that position of the body which should prevent the heat from being increased by the contact of anything from without, and, at the same time, retard the impetus of the blood towards the head. Now, confinement to the bed encourages the increase of heat; whilst, from the intensity of the affection of the brain, the animal spirits become hot and tumultuous, and there arises, from thence, vehement action of the heart, and an increase of the fever.

13. Now, however much, in this, and all other cases of fever

where the inflammation is intense, it may benefit the patient to avoid continual confinement to the bed, it must also be remarked, that if he keep up too long at a time, he will be liable to irregular pains that will terminate in rheumatism, particularly if he do so at the decline of his disease. Sometimes, too, his skin will be discoloured by jaundice. If this happen, he must be remanded to his bed, and kept there, so that the particles which supply the fuel to the disease (jaundice or rheumatism, as the case may be,) may be dissipated through the open pores of the skin. The bed must be kept one or two days, not longer; and the perspiration must not amount to sweating. Accidents, however, of this kind occur very rarely, and never except towards the end of the complaint; and as the disease is then much abated, the patient may be left in bed more safely than either at its status or its commencement. At each of these periods, it is necessary to be a little out of bed, in order to digest the febrile matter; since if the patient be too closely confined, the disease will be exasperated and increased.

14. An objection may be made against this method. It may be admitted to be well adapted towards determining the impetus of the blood from the head, and also towards relieving the patient. Yet it may be urged, that it is not the proper treatment for the full elimination of the febrile matter. This, it may be said, should be first concocted, and then expelled by means of sweating. To this objection I answer, that it proves nothing unless it can be shown that all fever is so carried off, and this is no easy matter. Reasoning will *not* tell us what fevers are to be destroyed by diaphoresis, and what by catharsis; but what reason will not do, experience will. More than this, we have good reason for believing, that there are certain sorts of fever which Nature cures by a way of her own, and despatches without any visible evacuation; doing this by the reduction of the morbific matter, and by its assimilation with the mass of the blood at large, with which it has previously disagreed. Relying on this, I have, in both the present fevers, and in others (provided always that they are not intermittents,) immediately at their onset, and before the whole blood becomes tainted, reduced them to order, by merely ordering small beer to be drunk, as often and as largely as the patient wishes,

and by forbidding all broths, and all similar sorts of meat and drink whatever. At the same time, I have allowed the patient his usual exercise and fresh air; never so often as once using an evacuation. By this treatment, and after the abstinence of two or three days, I have cured both my own children and my dearest friends. The treatment, however, is suitable only for young persons, and for patients of a sanguine temperament.

15. If we admit, at all, that Nature cures fever by sweats only, we must mean those which break out just as the disease takes a turn, and those which are the result of a previous digestion, *not* those which are forced forth during the first days of the disease, and which arise from the interruption of the regular economy of Nature. Sweats of this latter sort are, in my mind, not to be encouraged. The tumult which gives rise to them should be restrained. Sweats, too, of this sort attend many sorts of fever, but not all. Some fevers, I am well aware, are of a character which requires them, and that in the way of a crisis when they are at their turning point. Such are the particular paroxysms of intermittents; such, also, is the frequent and important fever which depends upon the same constitution with the intermittents. In each of these cases, all treatment which does not go at once towards the previous digestion, and the subsequent elimination, through sweating, of the morbific matter, increases the disease. Hence, no evacuations have place in the treatment of fever, except those that check the violence of the disease within the first few days from its attack. If they be resorted to, the patient will die of his doctor. The cause of the fever of plague being exceedingly fine and subtile, may be dissipated, in the way of sweats, during the first days of the disease. This is shown by the experience of all.

16. But with those fevers, where the symptoms have an ordinary course, where the disease takes its own line, where we find no definite time for the preparation of the morbific matter, and no efforts on the part of Nature to expel it, then I consider it over-boldness to force perspirations, to do violence to the disease, and to trust to this alone for the restoration of the patient. The "divine old man" teaches differently—*τῆς φύσεως ἀντιπραττούσης κενεὰ πάντα*. That such is the case with the particular fever in question, I am fully convinced; and that by manifold experience. It can not only be cured

without sweatings, but the patient may be endangered by provoking them. There is no necessity for doing so; and there *is* danger of the morbific matter being carried upwards to the head. Nevertheless, both in this fever and in all others, even in the case of those which are the least liable to pass off by means of critical sweats, as often as such sweat come of its own accord, come at a time when the violence of the disease has been abated, and come as the result of a proper concoction indicated by the remission of the symptoms, it is a sign which no wise physician will overlook. But, if it be not of its own accord that it makes its appearance, who shall say that we may not kill a man by our attempts to dispose his humours to sweats of the sort we want, by means of a hot regimen and cordial drinks? A man who finds a treasure lying on the ground before him, is a fool if he do not stoop and pick it up; but he is a greater one who, on the strength of such a single piece of luck, wastes labour and risks life for the chance of another. Be the matter as it may, of this I am certain, viz. that the fever has heat enough of its own, and that it brings with itself all that is wanted for the preparation and concoction of the febrile matter, so that there is no call for fuel from without in the shape of a heating regimen.

17. The preceding method of treatment by means of clysters and venesection, has been successful. The treatment by diaphoresis has ever been doubtful. It has harassed the patient, and caused anomalous and ill-conditioned symptoms. The most prominent of such symptoms has been a silent sort of delirium, which is more of a comatose stupor than of a wild loquacity, and which has been stated above to be a common attendant on this disease. Occasionally, I have seen this complication arise of its own accord; generally, however, it has been provoked by the over-officiousness of the nurse, who has misplaced her attention, and tried to force a sweat. By this, the morbific matter, which, in the present fever, is not amenable to such a kind of evacuation, is violently agitated, and becomes transferred to the brain, greatly to the peril of the patient.

18. I have already mentioned, in speaking upon the treatment of a fever of a preceding constitution, that during its last years, it was occasionally attended with a stupor like the one in question; that this stupor affected more especially children

and youths; that it was less profound, as well as less epidemic, than the present form; that at the beginning of the disease I could not subdue the milder (much less the stronger) sort at all; that I left no stone unturned to do so; that I repeated venesections; that I tried them not only from the arm, but from the neck and foot; and that I did the same with blisters, cuppings, clysters, and diaphoretics, of all kinds, under all forms, and with all the parts where they could be applied. At length I determined, after having bled from the arm, blistered on the nape of the neck, and thrown up, during the first days of the disease, two or three clysters of sugar and milk, to do nothing whatever beyond forbidding the patient meat and fermented liquors. Meanwhile, I watched what method Nature might take, with the intention of subduing the symptom by treading in her footsteps. Now whilst I so watched the disease, it departed; slowly and safely—still it departed. From thence, therefore, I considered that this method should be applied to all such other cases as I might thenceforward have to treat; a fact of no small magnitude, if we considered either the gravity of the symptom, or the uniform success of the treatment.

19. I often think that we forget the good rule *festina lente*; that we move more quickly than we ought to do; and that more could be left to Nature than we are at present in the habit of leaving her. To imagine that she always wants the aid of art, is an error—and an unlearned error, too. If it were so, she would have provided for the human race less than its preservation demands. There is no proportion between the multitude of diseases and the means of cure. There is none now; and there was none in the days when medicine was most honoured in its cultivation. What may be done in other diseases I know not. I only know, from careful observation, that in the fever which we now treat of, the aforesaid symptom after resisting such general evacuants as bloodletting and enemata, was generally brought to a successful issue by time alone.

20. It has been stated that the signs of convalescence are sometimes deferred till the thirtieth day. This takes place in cases of protracted stupor, accompanied, at times, by loss of speech. At the end of such time the patient will earnestly ask for some odd or unusual meat or drink, the ferment of the stomach being vitiated by the continuance of the disease. In

this case, I consider the exhaustion of strength, and the need for refreshment; so that I readily allow the patient to take what might otherwise be unfit for him, but which here is recommended by being palatable.

21. In the September of 1674 I attended the son of a bookseller who lived near me. The boy was nine years old, named Not. He suffered from the fever, and from the aforesaid symptom. I first bled him from the arm; then administered, daily, clysters during the commencement of the disease. I resisted the importunities of the mother, who wished to see her son cured more quickly than his safety would allow. I then held my hand for awhile, and ordered nothing beyond a common julep, for the satisfaction of the mother rather than for the benefit of the boy. About the 30th he mended; became greedy after strange meats, some of which I allowed him to take, although in any other case I should have denied them. So with this treatment he at length recovered perfectly.

22. Now, although this stupor, of a comatose kind, is the stupor which most regularly attends the present fever, it sometimes (although rarely,) is replaced by a frenzy without stupor. The patient keeps awake for days together, is wholly unmanageable, and suffers from the symptoms which accompany the frenzies originating in either fever or smallpox. Unlike the stupor, this delirium admitted of no delays. Instead of waiting for the morbid matters to become digested, it killed the patient within a few days, unless the inflammation were previously checked. Here it was that I found the value of spirits of vitriol, which, after a single bleeding, and the injection of one or two clysters, I ordered to be dropped in small beer, and to be used as an ordinary drink. This, within a few days, procured sleep, subdued the symptoms, and restored the patient to health; an effect which I could never procure otherwise. This also I have proved by abundant experience.

23. In the Autumn of 1675 both dysenteric dejections and occasional diarrhœa were superadded to the fever. I discovered, at once, that these were but symptoms, and not, as before, primary and original diseases. Notwithstanding this, when the cause of the disease was confined within the mass of the blood, venesection was indicated. This, with the addition of a narcotic, taken twice afterwards, was enough for the cure of the complaint.

24. In the September of 1675 I was sent for by Mrs. Conysby, near the King's Mews. She had suffered from the fever, and had been suddenly taken with gripings, followed, immediately, by mucous and bloody motions. Although her strength was prostrated by the fact of the disease being some days old, and still more by the frequency of the motions, which had been exceedingly distressing the night before, I, nevertheless, bled her at once from the arm, and ordered a narcotic to be taken soon after. This being done, that very night the motions became fæcal. The morning and evening following I repeated the narcotic, and prescribed, besides, a mild cordial to raise her spirits. She recovered forthwith.

25. As for the diarrhœa, it gave me but little trouble. As far as I could see, whether there was stupor, or whether there was none, it neither hurt nor helped. Hence I took no indications of treatment from its presence, provided always that it kept within certain limits, and did not, from its own proper violence, endanger the life of the patient. If it did, I gave a narcotic without hesitation; and I remark that this is the only case, during the whole course of the disease, in which the use of anodynes is admissible. The great tendency towards stupor is increased by their administration. Hence, unless in cases of urgent necessity, they are not to be resorted to.

26. It must be remarked that it frequently happens that convalescents from this, as from other fevers, especially when they have been protracted in duration, and have distressed the patient by large and continued evacuations, are liable, whilst lying in bed, to a fit of heat, followed by profuse sweats. This weakens them so much, that they are slow in recovering their strength, and, occasionally, fall into a decline. As I consider that this symptom arises from no other cause than from the obstinacy of the disease, the weakness, and the impoverished condition of the blood, its inability to assimilate its newly-introduced juices, and its consequent efforts to eliminate them by the way of perspiration, I recommend the patient to take, morning and evening, five or six tablespoonfuls of old Malaga wine. This restores the strength of the patient, and as his strength returns, his sweats go off. Thus much concerning the continuous fever of this constitution. From the remarkable stupor which attended it I called it the comatose fever.

CHAPTER III.

ON THE MEASLES OF THE YEAR 1674.

1. At the beginning of the years 1673 and 1674, i. e. in the month of January, a form of measles set in, which differed from the measles of the years 1669 and 1670. They were equally epidemic, but less regular, and adhering less to their proper type. At one time the eruption came too soon, at others too late; whereas, in the former species, it regularly appeared on the fourth day. Besides this, they first possessed themselves of the shoulders and the trunk in general, whilst the other sort began upon the face and spread gradually over the rest of the body. Neither in this species, except very rarely, did I observe those desquamations of the cuticle that looked like fine bran, and which in the other form disappeared after the departure of the eruption, as regularly as they appear at the end of scarlatina. Moreover, the disease was more fatal than its predecessor, killing a greater proportion of such as had been unskilfully treated. The fever and dyspnœa that accompanied the departure of the complaint, were more violent and approached closely to pneumonia. However, notwithstanding these anomalies and irregularities in respect to the aforesaid symptoms, the history of the measles of 1670 will serve for those of 1674, at least in respect to the leading phenomena. Hence I shall not repeat it. These last, like the earlier ones, increased up to the vernal equinox, decreased from that time forwards, and disappeared either just before, or not long after the summer solstice.

2. The treatment was as before. I refer my reader to the pages where it is recorded in full. I shall here content myself with my usual practice, of giving a single case, as a sample of my method of dealing with the disease in question.

3. In the month of February, A. D. 1674, I was sent for to a lady, who is a model of all virtues, and a pattern for her kind, the Countess of Salisbury. At that time only one of her children was ill. The rest, however, sickened afterwards. There were five or six, and I treated them all alike. I ordered them to keep their bed for two or three days before the erup-

tion, in order that the blood might follow its natural bent, and eliminate, through the pores of the skin, the more separable particles that were causing the disease. I allowed neither fire nor bedclothes beyond what they had been used to in health. I forbid meat, permitting only oatmeal porridge, barley-broth, and now and then a roasted apple. Their drink was weak small beer, or milk mixed with three parts of water. The cough, as usual, distressed them. For this I ordered a pectoral ptisan to be taken frequently. Under this treatment they wholly recovered within the usual short duration of the disease, suffering neither during its course, nor after its decline from any extraordinary symptom.

4. During the first months of the appearance of this form of measles, there intervened, in a *sporadic* or *intercurrent* manner, a *measly fever* (*febris morbillosa*). It exhibited ecthymata of the trunk, especially on the back of the neck, and on the shoulders, like the ecthymata of measles. From these, however, they differed, in being limited to the parts aforesaid, not distributed generally and equally over the body. But the fever (although evidently of the same sort) was much more serious, lasting to the fourteenth day, and often beyond it. It bore neither bleeding or clysters; on the contrary, it was aggravated by each, whilst it yielded readily to the treatment of measles, as given above. This is what I have to say about measles.

CHAPTER IV.

IRREGULAR SMALLPOX OF THE YEARS 1674, 1675.

1. Just as the epidemic measles which set in at the beginning of the year 1670, introduced a black smallpox, which we have described in its place,[1] so did the measles of the beginning of the present year introduce a species of smallpox of similar character; so similar, that we might almost say that the old disease had broken out afresh, rather than that a new one had originated. It has been stated above,[2] that with the former species of smallpox, after the lapse of the first two years, the pustules grew every day less black, that they also grew gradually larger, and that by the end of 1673, the disease, considering its character, had become mild and moderate. It now returned with all its former violence, and with the same attendance of inauspicious symptoms. The pustules, when they had become confluent, and when the patient had not died before they ripened, were as black as soot; the immature ones were only brown. Moreover, whenever they were numerous, they were also small; whilst, whenever they were few, they were of the usual size, and rarely black. In one word, they were closely allied to the pocks of 1670; with which, however, they did not wholly coincide. The few points wherein they differed, indicated a greater amount of putridity in these last; they also showed that they were of a thicker and less concoctile nature. They began to throw out a bad smell earlier, and this was so bad that when a patient suffered very severely, I could hardly approach him for the fætor. Moreover, they reached their full period more slowly, and hung about the patient longer than any form of smallpox which it has ever been my lot to witness.

2. In the meanwhile it is worthy to be remarked, that just in proportion as the species of smallpox is mild, so do the pustules arrive at maturity the sooner, whilst the disease is brought to a conclusion. Hence, in that regular kind of confluent variola, which set in in 1667, it was the eleventh day which

[1] Sect. IV, Chap. VI.—[G.]

[2] Sect. V, Chap. I.—[G.]

brought the most danger to life; and when that was past, the patient had rarely much to fear. In the form of variola that immediately succeeded, the day of the greatest danger was the fourteenth, or, at latest, the seventeenth. After getting over these, the patient was safe. I never saw an instance of one dying after the last of the two periods. With the present kind of variola, the patient was afflicted till the twentieth day; and this he rarely survived. If he did, not only did the ankles swell, as they do commonly enough, in confluent smallpox, but the arms swelled as well. So did the shoulders, legs, and other parts of the body. The excessive pain of these tumours was the pain of rheumatism; and these it was that were the forerunners of future mischief. They went on, afterwards, to suppuration, and terminated in the formation of vast sinuses, and abscesses of the muscular parts; the patient remaining with his life in danger for many days after the disappearance of the pustules. From these facts I have formed a clear opinion concerning the degrees of the three epidemics of the three constitutions. The last was the worst; and that both in respect to its greater putridity, and in respect to the more difficult concoctibility of the morbific matter.

3. Now the kind of smallpox which I am now considering is, in my mind, a new sort, and one which arises out of the previous species in its declining form. However much the black smallpox, which first showed itself in the beginning of the year 1670, was in accordance with the particular epidemic disposition of the atmosphere, which produced it, and, however much it both reached and passed its height, it, nevertheless, like a disease, wherein the fresh fermentation of the original matter had caused a relapse, was renewed, took strength, revived, and grew young again; the air having become again disposed to the production of smallpox, and having, as it were, fetched it afresh from its old stores. And just in proportion as the matter from which the new disease was generated was thicker, and more feculent than the matter which gave origin to the previous one, so was the pox itself irregular, and so did it savour of an intense putrefaction. To make this clear, we must consider, not that any particular diathesis is to be assumed from the atmosphere itself, by which, whilst we have one epidemic propagated in one place, we may have another, wholly different,

elsewhere, and at no great distance—if such were the case, every movement of wind would (as it sometimes does) invariably diffuse a constitution—but that each particular tract of the atmosphere is filled with the effluvia of some mineral fermentation, that these contaminate the air through which they pass by their particles, that these particles are differently destructive to different animals, and that they propagate diseases appropriate to the different affections of the soil, until the whole mine of such subterraneous vapours be exhausted. This, again, (as in the instance aforesaid) may be brought to a fresh fermentation from the relics of the imperfectly-exhausted matter.

4. With me, however, who do not venture to speculate beyond what I am taught by the facts themselves, it is immaterial whether this or any other hypothesis best explain the phenomena. Of one thing I am certain, viz. that the smallpox, which I have already considered, is exceedingly like the smallpox of the preceding constitution, except in the single fact of its grosser nature, and more intense putrefaction. Furthermore, from these two causes, whenever it was exceedingly confluent, it destroyed more than any other species which it has been my lot to observe. Indeed, if my opinion on the matter be of any value, I may venture to affirm, that in regard to the number of patients that it attacked, it was on a level with the plague itself. Yet, when the pustules were distinct, the malady was no worse than any other; and, besides this, exhibited a favorable character in the size of the pustules, in the colour of them, and in all other circumstances.

5. Respecting the treatment, I have for many years wondered at the unequivocally contradictory nature of the indications suggested by this disease. On the one side we see, as clearly as the sun at noon, that fevers, frenzies, crimson spots, and all those other symptoms to which this disease is preeminently liable (symptoms which depend upon an excess of inflammation) are produced off-hand. On the other, there are the dangers of an over-cool regimen; and there are also the tendencies to obstruct the swelling of the hands (a matter of transcendent importance), and to render the pustules more flaccid. After considering, long and steadily, these difficulties, and after having made myself much anxiety on account of them, I discovered that there was a way of obviating both difficulties at once.

By allowing the use of boiled milk and water, thin small beer, or some other mildly generous drink, I had still the power of controlling the internal orgasm of the blood; whilst, on the other hand, by keeping the patient strictly to his bed, and forbidding him to expose even so much as his arm, I was provided with a bland and genial heat, which promoted the elevation of the pustules, and the swelling of the hands and face. These methods are by no means inconsistent with each other; the doctrine being that, after the completion of the eruption, the blood throws out the inflamed particles upon the surface of the body, and (so doing) is in no need of any further stimulus to any further secretion. Hence the whole matter turns upon the maturation of the abscesses upon the surface, a fact which leaves us only two considerations.

On the part of the blood we have to guard it against the hot vapours that might arise from the retrocession of the matter of the pustuliferous flesh.

On the part of the pustules, we must look to supplying them with the bland warmth proper for their maturation.

6. Now, however much the plan which I have described[1] above succeeded in the confluent smallpox of the preceding constitution, in the disease of the present one it disappointed me. Indeed, in the present form of the malady, the majority, of those who had it badly, died; and that, whether they were treated by me as before, or by means of hot cordials. This suggested to me the notion, that what was now wanted was something over and above the mere security against excessive ebullition of the blood, and over and above the mere method ensuring the elevation of the pustules, and the swelling of the hands and feet. What characterised the irregular smallpox was an intense degree of putrefaction; and what was wanted, as a remedy, were means of checking it. Now spirits of vitriol came in mind under the two requisite conditions. They would allay the heat, and they would check the putrescency. On this principle I left the patient to himself until the pain and vomiting which precede the eruption had subsided, and until the eruption itself had broken out in full; then, on the fifth or sixth day, I allowed him, as his ordinary drink, thin small beer, just acidu-

[1] Sect. III, Chap. II, § 50.—[G.]

lated with the aforesaid spirits. This he was to take *ad libitum* always, and more freely still as the fever of maturation was at hand. This drink I ordered to be used every day, until he became fully convalescent.

7. This spirit looks like a real specific to the disease; so miraculously does it check all its symptoms. The face swelled both higher and earlier; the interspaces between the pustules were of a better red, and more of the colour of the damask rose; the smaller pustules enlarged themselves to the utmost size that the ailment admitted; some which would otherwise have been black, showed a true yellow and honey-like matter; the face, instead of being black, was a deep yellow; and, lastly, the pocks ripened sooner, and got through all their stages a day or two before their usual time. But for all this to happen, the liquor had to be taken freely. Hence, whenever I found the patient refuse to take the proper quantity in the aforesaid form, I gave it him with a little syrup in a spoon, or else with a little syrup and distilled water. This was to make up for the insufficient amount of the liquor in its proper form.

8. I have enumerated the various merits of this medicine. Of mischief arising from its use I have hitherto seen no signs. Although it may check the salivation about the tenth or eleventh day, in place of which dejections will take place (and that about the same time), the latter will endanger the patient much less than the former. I have already said that sufferers from the confluent smallpox are jeopardised chiefly through the circumstance of the saliva becoming, at the time in question, so viscid as to choke the fauces. Now this symptom is relieved by a diarrhœa; whilst the diarrhœa itself will either stop of its own accord, or, at least, as soon as the danger from the pocks is over, be checked by a little milk and water, taken along with a narcotic.

9. Now the sick during this treatment keeps his bed; and he even keeps his arms under the bedclothes Nevertheless, I do not allow more blankets than usual. Furthermore, I allow him to turn and move himself to different parts of the bed, and that for the sake of keeping off such over-perspirations as, notwithstanding the remedy, he is inclined to. His diet is barley-broth and oatmeal-gruel, with, now and then, a roasted apple. During the last days of the sickness, if the stomach grew weak,

or the strength wane, I indulge him with three or four spoonfuls of canary wine. Every evening, too, from the fifth or sixth day onwards, I prescribe (except in the case of infants) a paregoric, to be taken early. This is fourteen drops of liquid laudanum in cowslip-flower water.

10. On the fourteenth day I allow the patient to get out of bed; and on the twenty-first I take care to bleed from the arm. I then exhibit a purge, and repeat it once or twice. The colour of the face now begins to improve, which is not the case where the disease has been severely afflicting. Furthermore, the method in question prevents the scarring, which so frequently disfigures the features, and which arises from the erosion of the skin by the hot acrid humours.

11. On the 26th of July, 1675, a nobleman, and a friend of my own, Lord Elliot, one of the Grooms of the Bedchamber, intrusted to my care one of his servants, who was on the eve of an attack of the confluent smallpox. He was about eighteen years of age, of an exceedingly sanguine temperament, and had brought on his disease by a recent fit of extreme drunkenness. The pustules were confluent, and in a thicker crop than I had ever before seen them; so much so, that there was scarcely a perceptible space between them. So much, in this case, did I trust to the energies of the medicine in question that I forebore bleeding; although sent for at a time when I was free to employ it. Nay, more, I ought to have done so; since it was from an overdraught of wine that the ailment had been evoked. However, after the completion of the eruption, and on the fifth or sixth day, I ordered some spirits of vitriol to be dropped into a jug of small beer, and allowed him the same, to be taken as freely as he chose, for his ordinary drink. On the eighth day he had such a bleeding at the nose, that his nurse was frightened, and ordered me to be sent for in a hurry. I came, found that the bleeding arose from an immoderate overflow of blood, and ordered him to go on with his drink. The bleeding was stayed at once. Salivation then set in freely; the hands and face swelled; the pustules filled and increased; and the disease proceeded favorably; except that towards the end there was the interruption of a few slimy and bloody motions; and even these, perhaps, would not have occurred had I opened the vein, as I might have done. Nevertheless, I attacked this dysentery with

neither more nor less than the common narcotic draught that I should have used in a common case, had no such symptom intervened. This was to be taken every night, until the pustules disappeared. Then I bled freely from the arm; and after drinking abundantly of milk and water, he suddenly recovered.

12. About the same time, one of my neighbours, Mr. Clench, intrusted me with the cure of two of his children. One was four years old, the other unweaned, and under six months. In each case, the pustules were very small, very confluent, like erysipelas, and of the sort called black. Notwithstanding the tender years of the two (especially of the suckling), I gave them some drops of spirits of vitriol in their drink. They took it kindly, and recovered without any bad symptoms. My dear friend, Dr. Mapletoft, who attended them with me, found the elder convalescent, but the younger still sick in his cradle.

13. I must observe, however, that as the smallpox of this constitution was so far from being necessarily confluent that it was generally benign, so there was not often occasion for the the above-mentioned remedy. It was sufficient to treat it according to the method for the distinct smallpox. This I have already described.

14. Courteous reader, you have now heard all that I have had to say about smallpox. I know the temper of the times too well to suppose that there will be wanting men who will disparage what I have taught. Nevertheless, it is the fruit of much care, labour, and industry; neither would I have published it, had I not thought more of the charity due to my neighbour than of my own private reputation. This will be endangered by the novelty of my doctrine. Yet there is no good reason why a new method should not be applied to a new disease; inasmuch as (unless we distort a single passage by a forced interpretation) smallpox is mentioned neither by Hippocrates nor Galen. As to the treatment instituted by modern physicians, and *not* instituted by those two great luminaries of medicine, it is neglected by some as justly as it is valued by others.

15. By a parity of reasoning, I have changed the treatment of the fevers that depend upon the variolous constitution. If the smallpox be new, the fevers that it determines must be new also. I think it not over-bold to believe, that smallpox, in the time of the ancients, was non-existent *in rerum naturâ*.

Had it been as common in the days of Hippocrates as it is now, so unrivalled an historian of disease would, undoubtedly, have left us as genuine and simple a description of it, as he has done of other diseases.

16. For these reasons, I may be allowed to think, that diseases have certain periods for their remarkable, and hitherto undiscovered, changes—changes which take place in the very bowels of the earth, according to its age and duration. Moreover, just as other diseases have existed long ago, yet have already either wholly been extinguished or else have become well-nigh worn out from age (leprosy, for instance, and probably others), so, shall those diseases which now prevail, some time or other, sooner or later, become extinct, and in their extinction, give way to new species, the natures whereof are beyond even our conjectures. This may be the truth, whatever may be the notions of the short-lived mortals who are born to-day and perish to-morrow. Nor are the accounts which even the most ancient authors that have written on disease of a much longer date, provided that they be compared with the duration of the world at large.

CHAPTER V.

THE EPIDEMIC COUGHS OF THE YEAR 1675, WITH THE PLEURISY AND PERIPNEUMONY THAT SUPERVENED.

1. In the year 1675, warm and mild weather (indeed summer weather) lasted longer than usual, even to the end of October. However, it was succeeded by weather very different, viz. sudden cold and moisture. Then it was that coughs prevailed in greater number than at any other time within my remembrance. No one escaped them, whatever might be his age or temperament; and they ran through whole families at once. Nor were they only remarkable for their frequency: this being the case every winter. They were remarkable on account of the accidental dangers which they brought upon those they affected. The constitution of both the present time, and the whole of the previous autumn, exerted itself to the utmost in the production of the epidemic fever already described; and, besides this, there was no other epidemic disease by the antagonism whereof the activity of the present one might be traversed in even the least degree. Hence the coughs paved the way to fever, and passed, without difficulty, into it. Meanwhile, just as the coughs helped the constitution in producing the fever, so also was the fever determined by the cough to the lungs and pleura. These it attacked just as, a week before, it had attacked the head. This sudden change inclined the unthinking to consider the fever as either an essential pleurisy, or an essential peripneumony. Yet it was neither more nor less than what it had been throughout.

2. Now as before, it attacked with pain in the head, back, and limbs; and this was the symptom of the fever of the constitution. Doubtless, the febrile matter fell heavily on the lungs and pleura; but this was the stimulus of the cough. That the fever, however, was the fever that committed all the previous havoc, is proved by the effects of the remedies. Both forms yielded to the same. Bad as might be the stitch of the

side, or the difficulty of breathing—and pleuritic as might be the character of the blood, the treatment was the treatment which squared with pleuritic fever, and not the treatment which squared with true pleurisy. This will be seen in the sequel. Then as to the season, primary and essential pleurisy is a disease that comes between the spring and the summer, and links the two divisions of the year. The secondary pleurisy in question was born under another star, and was nothing beyond the symptom of the proper fever of the year, and an accidental offspring of the cough that accompanied it.

3. In order that I may proceed to the method which has been dictated by experience for the treatment of the coughs of this year, and of other years, where the cause is the same, I must start with a remark upon those effluvia which are usually got rid of by the means of insensible perspiration. Now, these may be checked by the effects of cold, for cold contracts the pores of the skin and throws the transpiration inwards. So thrown in, it falls upon the lungs. These it irritates; and hence cough is speedily excited. Furthermore, when the hot and recrementitious exhalations of the blood are prevented from escaping from the skin, fever is lit up, for so great may be such abundance of these same vapours, that the lungs may be insufficient for their elimination. Or the natural heat may be increased by the adventitious heat of either the regimen or the remedies; so that fuel may be added to the flame, and the patient, who was already inclined towards fever, may be thrown into it at once. Now, whatever may be the character of the stationary fever which rages during the year in question, the same will be the character of this secondary fever that originates in the cough. Dependent upon this cough, it may present certain peculiar symptoms. Its general character, however, will be that of the family into which it is adopted. Now, it is clear that whatever may be the origin of the cough, it is not the cough alone that must be attended to. The fever must be looked to as well.

4. On this principle I treated my patients as follows. If the cough had not yet brought in the usually concomitant fever, I was satisfied with forbidding animal food, and fermented liquors. I recommended moderate exercise, fresh air, and occasional draughts of a cooling pectoral ptisan. This was

sufficient for checking the cough and anticipating the fever. The abstinence from meat and wine, and the refrigerant draught, tempered the blood and made it less ready for the febrile impressions, whilst the exercise opened the pores of the skin, and supplied the natural and genuine passage for the exhalations. These were dispersed, and the patient was the better for their dispersion.

5. As to the allaying of the cough, the application of narcotics and anodynes was not wholly safe. And just as dangerous was the use of spirituous liquors and hot cordials. Both modes acted alike. They entangled and hardened the matter of the cough, so that those exhalations which, by departing quietly and gradually from the blood, should vanish into the atmosphere at large, were now denied an exit, corked up in the mass of the blood, and became, thereby, sources of fever. This was most frequently the case with such of the common people as thought, by means of burnt brandy and other hot liquors, to check the cough. Instead of this, they brought on pleurisies and peripneumonies, and by their unwise wisdom transformed a disease, which, in and of itself, was unimportant and curable, into a disease both dangerous and deadly. Just as insensible (although with a greater show of sense) were they who would force a sweat, and so think to exterminate the cause of the disease.

Nevertheless, it must be owned that *spontaneous* sweats often did good—more, indeed, than aught else. These, however, are very different things from forced ones. The latter can only be extorted by incensing the blood, and by endangering the patient that we would save.

6. Sometimes, however, there supervene upon the cough the following symptoms: a succession of chill and flushes; pains in the head, back, and limbs; an occasional tendency to sweats (especially night sweats); sometimes the addition of pain in the side; sometimes a constriction and tightness at the chest; and, as the result of this last, difficulty of breathing, tightness in the cough, and violent fever. Now all this might happen, not only after the disease had been badly treated, but spontaneously; and this was really the case, more especially with infants and children. Sometimes it began immediately, sometimes a day or two after the cough had left.

7. As far as very careful observation has informed me, the best treatment for the fever and its worst symptoms were—bleeding at the arm, a blister to the nape of the neck, and a daily clyster. The patient, meanwhile, was ordered to be out of bed a few hours every day, to abstain from animal food, and to take, as his drink, small beer, milk and water, or a cooling lenitive ptisan, as the case might be. If by the end of two or three days the stitch in the side were not removed, I repeated the bleeding, and went on with the clysters. In respect to these last, I must remark, that (in this fever, as in others) when, by their use, the neck of the disease has been broken, and its edge taken off, they should not be too continuously repeated, especially in the case of women who are hysterical, or men who are hypochondriacs. The blood and humours of such patients are endowed with great mobility. A little makes them boil and ferment. This disturbs the economy; and febrile symptoms, extended beyond their due time, harass the patient.

8. To return to our subject. By this method we allow time to the disease, and this time allows the blood to throw off, by degrees, those hot particles which had fixed themselves upon the lungs and pleura. Hence, all the symptoms will quietly disappear. If, on the other hand, you attack the disease fiercely and with a hostile hand, waging war against it with a whole armament of remedies, you will either lose your patient, or else have to redeem his life by bleeding him beyond both the genius of the disease and the bounds of safety. I say *the genius of the disease*, because, in the true pleurisy, repeated venesections are right and proper; and, provided that overheating remedies and regimen have not stood in the way, cure the complaint single handed; whereas, with the symptom in question, it is quite sufficient to bleed once only—twice at most; provided always that the patient be allowed to leave his bed, and use cool drinks. There is no need to bleed oftener, unless the fever be increased by heat from without. Even then a repetition is not always safe.

9. I will now take occasion to say a few words concerning a very current opinion, viz. that in some years pleurisy is found so malignant as not to bear its usual bleedings. My own doctrine is, that the true and essential pleurisy, which, as will

be stated hereafter, runs rife under all constitutions of all years, will tolerate a repetition of venesections. When, however, it happens, as it sometimes does, that the proper epidemic fever of the year, from some sudden alteration in the manifest qualities of the atmosphere, deposits the morbific matter of the lungs or pleura (the fever remaining, nevertheless, the same)—in such a case, I say, that, although venesection may be allowed in an extreme form of the symptom in question, the general rule must be, that the bleeding be apportioned to the fever that generates the symptom, rather than to the symptom itself. Hence, if the fever require bloodletting, the pleuritic symptom will require it also; if not, bleeding will be either unnecessary or mischievous; since it is with the fever that the pleurisy either stands or falls. In my mind, this was the case with the symptomatic pleurisy accompanying the fever that prevailed at the time when the coughs came in, viz. the winter of 1675. And here I must again remark, that, in the treatment of fevers, the physician who does not keep continually before his eyes the constitution of the year, the extent to which it favours the epidemic production of this or that disease, and the power it has of twisting to its own proper shape and likeness all the other concurrent diseases of the time, wanders wildly in a maze without a clue.

10. In the November of the aforesaid year, I attended Mr. Thomas Windham, the eldest son of Sir Francis Windham, knight. The patient was sick of the fever in question, and complained of pain in the side, and the other symptoms of the malady. I bled once (and no oftener), blistered the nape of the neck, threw up daily clysters, ordered, one day, ptisan and refrigerant emulsions, another, milk and water (sometimes, thin small beer), and recommended him to be out of bed a few hours every day. This set him up within a few days, and after a free purge he was thoroughly cured.

11. I must remark that although these symptoms, which were wont to supervene upon the cough, were nearly those that did so much mischief during the winter in question, the cough itself, single and unaccompanied, was, at the same time, particularly predominant. In treating this, there was occasion for neither bleeding nor clysters, provided that the fever was not

increased by heating diet. It was sufficient to recommend fresh air, and to forbid meat and wine. Furthermore, I ordered the following lozenges, the best I know for checking such coughs as arise from cold:

℞ Sugar-candy, lb. ijss.
Boil in a sufficiency of pump-water, until it stick to the ends of the fingers. Then add
Liquorice-powder,
Elecampane,
Aniseed,
Angelica-seed, āā ℥ss;
Orris-powder,
Flowers of brimstone, āā ℥ij;
Essential oil of anise, ℈ij.
Fiant tabellæ s. art.

These, the patient should always have about him, and take frequently.

12. Before I take leave of my subject, I must anticipate an objection which I foresee may be made against some of my remarks on epidemic diseases. It may be said that I do not sufficiently deal with the *malignity* so inherent to many of the maladies in question. Now I am not the man to either be able or willing to uproot the received opinion of learned men concerning this same malignity. It stands proved by too many facts. My own practice is that of the most learned Scaliger—

"Non mihi, sed rationi, aut quæ ratio esse videtur,
Milito, securus quid mordicus hic tenet aut hic."

My view of *malignity* is as follows.

13. I consider that all forms of malignity that occur in epidemic diseases (be its specific nature what it may), consist and terminate in the excessive heat and spirituousness of the overstrained humours of the human blood, which are, more or less, adverse to nature: since it is only humours of this sort, that are competent to produce the sudden changes of those diseases which are called malignant. I believe, too, that these act chiefly by a process of assimilation, for it is a law of Nature that every active principle busies itself in the further procreation of something similar to itself, and deflects and accommodates to its own character whatsoever may be an obstacle in its way. Thus fire generates

fire, and the victims of malignant diseases infect their fellows. This they do by the emission of those spirits which infect the humours, assimilate them to themselves, and draw them into a participation of their own nature.

14. With these premises, it would seem to follow, that the first thing to be done is to procure the elimination of these particles by sweatings, by which means the disease would be extirpated at once. Against this, however, we have the voice of experience, whereby we are told that this cannot be done in each and every case of malignity, indifferently. However much it may be the case that, in the plague, the pestilential particles are of such excessive subtilty, and are so thoroughly seated in the spirituous parts of the blood, and are, for such reasons, so capable of dissipation as to be ejected from the body by the excitation, rather than by the interruption, of a diaphoresis, in other fevers there is a different condition of the assimilating particles. There, they are at a less degree of subtilty, less incorporated with the finer humours, and less adapted for being dissipated by sweats. In some cases, indeed, they are likely to be increased by them: since, just in proportion as such hot and spirituous particles are actuated by heating and spirituous remedies, their power of assimilation takes intensity, and just in proportion as those humours upon which they work become inflamed, the tendency to assimilate is increased, and the liability to impressions is facilitated. Meanwhile, reason tells us that those medicines which are of a contrary nature to that of the hot particles in question, are not only competent to check their violence, but also to condense and strengthen those humours which should thereby bear, or even break, the impetus of such morbific spirits. And herein I can call in the evidence of experience, since I have learned that both the purple spots of fever and the black pustules of smallpox have taken intensity all the more readily from the patient having been heated. The same symptoms decrease in proportion as the regimen is (as it ought to be) cool and moderate.

15. Now, if any one ask me, how it is that, since malignity consists in the presence of hot and spirituous particles, it often happens, that even in diseases of the greatest malignity, so few signs of fever are discovered; my answer to his question is as follows:—first, that even in the plague, the chief and most

remarkable sample of malignity, it is clear that the morbific particles (especially at the commencement of their prevalence) are so immeasurably subtile, and sharp, that they pervade the blood like a blast; and from the animal spirits being, as it were, star-struck, they fail in raising the blood to any ebullition at all. Hence the sick man dies without fever.

16. As to that smaller degree of malignity, which is found in other epidemics, the febrile symptoms are rendered inconspicuous by the confusion in the blood and humours, excited by hostile particles shut up within their bosom. This oppresses Nature so that she is unable to exert those more regular symptoms which should be natural to the disease, and the phenomena, that appear at all, appear as anomalies arising from an economy which has been pulled down and wholly upset. This depresses the fever, which, under a true guidance of Nature, would otherwise have existed.

At times, there occur fewer signs of fever than the genius of the disease indicates. This arises from the metastasis of the malignant humour, and from its transfer to either the nerves or to some other part of the body. During the turgescence of the matter that determines the disease, this metastasis may take place to even those humours that lie beyond the limits of the blood.

17. Be this as it may, I cannot even guess at any other method for meeting this malignity beyond that which is proper for the epidemic that originates it. Hence, whether the epidemic belong to that sort where the febrile matter requires sweatings for its concoction, in the first instance, and sweating for its dissipation, in the second; or whether it be of that other kind that of itself finds a way out for itself by an eruption; or, finally, of that third species which waits for the help of art for the opening of an outlet; in each, and all of these forms, the malignity, which is the accompaniment of the disease, will stand or fall with the disease, take its turns along with the disease, and recede at the same pace, with the disease. Consequently, whatever be the evacuations which will do our work with the fever, they will do it with the malignity also, no matter how opposite to one another they may be in themselves. So that, for the malignity of the autumnal intermittents, and of the continued fever that went with them, the cure was the diaphoresis,

that follows either concoction or the effects of concoction; whilst for the malignity of smallpox, the cure was the seasonable maturation of little abscesses. And so on throughout. The species of malignity peculiar to each malady is best met by the method which best meets the peculiar disease to which such malignity appertains—be this what it may. Common sense tells us this. Experience does the same. All else is shadow more than substance.

CHAPTER VI.

THE RECAPITULATION.

1. And now we have shown that that period of years, wherein the preceding *observations* are included, has produced, in all, five sorts of constitutions, or five peculiar dispositions of the atmosphere, and as many peculiar species of epidemics, viz. fevers. However, it is only the first of these five, the fever which was rife and common at the time when the autumnal intermittents held their sway, wherein, to my mind, Nature so moderated all the symptoms as to dispose the febrile matter by a proper preparation, though a regular coction, for its proper outlet; either by the way of due diaphoresis, or a free transpiration (διαπνόην). For this reason I call it the depuratory fever. Indeed, I am easily brought to believe that this is the principal and standard fever of Nature; both on account of the regularity of the method which it employs in promoting the morbific matter (digesting it at its assigned time), and from the fact of it being of all fevers the commonest in respect to its occurrence.

2. It is highly probable that intermittent fevers spread themselves as epidemics oftener than any others—at least so runs the evidence of the numerous authors who have written numerous works upon the frequency of their appearance in times past. Why they have shown themselves so rarely since the breaking-out of the great plague is more than I can tell; unless it be that the pestilential fever in question was the leader and forerunner to all the inflammatory fevers which have since set in.

Now, either I am mistaken, or the same primary fever is the fever to which Hippocrates dedicated his admirable and necessary axioms; and it is this same primary fever upon which the other great physicians of antiquity have commented. These are the teachers who tell us how to regulate it, and that in such a manner, that the febrile matter shall be prepared for its due crisis in the way of sweats. Indeed, I do not see how the aforesaid aphorisms are applicable to the subsequent forms of fever. *Their* character is wholly different. Their treatment different also. They are rarely cured by the method which, properly applied and fairly carried out, cures the fever in question.

Be this as it may, one thing is certain, viz. that whilst the fever which ran parallel to the intermittents easily became converted into an intermittent (either from simple continuance or from excessive evacuations), the fevers of the years that came next, long as they might harass the patient, rarely became such. This is a clear proof that the character of the continued and the intermittent fever is either identical or similar.

3. Now, if any one ask how he is to fish out the species of a continued fever by means of the signs that I have given in the preceding descriptions of fevers, considering that (generally speaking) they are, each and all, involved in the symptoms common to all fevers alike; these being heat, thirst, restlessness, &c., I reply that the operation, although difficult, is not impossible. Let him accurately weigh all the circumstances which I have set down in the foregoing history; and let him choose for his field of observation some large and populous place. Suppose a physician called into one who is thus sick. Either from his own observation, or from the evidence of his brethren in medicine, he is sure of having one fact to rest upon. He may ascertain what other diseases, besides the fevers that he has in hand, are common, and what is their genus as epidemics. This being known, he easily tells the genus of the one particular specimen, for he knows the leading epidemic, and he knows there is but one family for the two. However much it may be the case that a fever shows itself only in those symptoms which are common to fevers in general, other epidemics will speak out more openly as to *their* proper natures and *their* real characters. As to the

obscurity that may invest a fever, nothing conduces to it more than the confused and atactic character which it may put on under a treatment foreign to its genus.

4. For instance, a man who has seen a case of smallpox (provided that he thoroughly know the history of the disease) will easily guess, either from the day on which the pustules break out, or from their size and colour, to what particular sort of smallpox they are to be referred; and when he has once ascertained what such species of smallpox really is, which at such time, and place prevails, he will have a clear notion as to the character of the fever similarly prevalent. Indeed, if I could take credit for (what I do not profess) an absolute knowledge of the history of diseases, I could from the knowledge of the epidemic determine, without seeing a case, the nature of the fever; and, similarly, from the nature of the fever, I could predicate the concomitant disease, stating whether it were smallpox, measles, dysentery, &c. Some peculiar sort of these diseases attend each constitution, even as some peculiar fever does.

5. In the second place, over and above the evidence which is supplied by the concurrent prevalence of epidemics, each individual fever has certain particular symptoms of its own that lend us light in detecting its nature. However much (as stated above) certain symptoms are common to the class of fevers at large, others exist as definite marks of distinction, stamped by Nature upon each several species. Subtle and refined as these may be, they are still within the view of the truly cautious investigator, and of the inquirer who carefully weighs and ponders over the minutest details. Amongst these distinctive signs, I have always given the first place to the state of the skin at a given stage of the disease; provided always that no incongruous treatment have deflected the malady from its proper method. This is clear throughout the epidemics embraced in the present observations.

6. For example, in those fevers which raged during the decline of the autumnal intermittents, the skin of the patient kept dry; and there were no signs of perspiration before the concoction of the febrile matter, an event that generally occurred on the fourteenth day. Nay, more, sweat could not be

procured artificially without great danger to the sick man, who, from such forced diaphoresis, was exposed to frenzies and other such deadly symptoms. In the pestilential fever which followed that of the intermittents, and which led the way with the inflammatory ones, there was no spontaneous sweating at all. Sudorifics, however, would bring it on; and that during even the first days of the disease, and to the great relief of all the symptoms. Then, as to the fever of the regular smallpox, the patient sweated profusely from the first. If, however, he encouraged such sweating, his symptoms, instead of improving, became worse. In the two fevers that accompanied the dysentery and the *anomalous* smallpox, the sweats were also anomalous, those of the first of the two being somewhat more copious than those of the second. Neither, however, benefited the patient; being excited by the confused motion of the particles, rather than being the results of a previous concoction.

7. It seems to me a difficult thing to ascertain the species of a new sort of fever, at the turn of a constitution, and before any one has seen a sample of it, before, too, we can observe what kind of epidemics are to come; since the fever, for the most part, takes the start of them. It would be a tedious matter to enumerate the points which occurred in the years of which I have treated, and from which it would appear, that even in this case, we are supplied by Nature with various palpable hints. Yet it is from a scrupulous and exact observation of all such circumstances that such knowledge necessarily depends.

8. Now, however high we may put the difficulty—even if we rank it amongst the impossibilities—of accurately distinguishing the character of a new fever, immediately upon its appearance, we may still take indications as to the treatment from the *juvantia* and *lædentia*. By watching these, we may feel our way; so that, provided that we are slow enough, we can save the patent. There is nothing more destructive than precipitancy, which has destroyed more lives of fever-patients than any other cause.

9. This is, within a little, the result of my observations hitherto. At least, this is what I have been able to reduce to rule. I have treated of the different species of the epidemics, and also of the order in which they have occurred, from 1661

to 1675. At the present time, the smallpox and the continued fever have prevailed for nearly two years. However, they have become milder, and seem to be wearing themselves out. What diseases will come next in turn, He only knoweth who knoweth all things.

SECTION VI.

CHAPTER I.

INTERCURRENT FEVERS.

1. The *observations* upon the years, which I have described in the preceding part of my work, are conclusive as to the propriety of the term *stationary fever*—at least as applied to some kinds of that disease. These are the forms which depend upon some particular, but hitherto undiscovered, condition of the constitution of the particular year; which first set in, then rage up to a certain point, and finally, preponderate over others throughout the continuous series of their own proper years. Whether there be other species besides those enumerated, or whether, within a certain cycle of years, they succeed each other in a certain and constant order of succession, has yet to be ascertained.

There are, however, other *continued fevers*, which, although they may spread their mischief in different degrees at different periods, may yet, within one and the same year, be intermixed with the stationary kinds, or, even with each other, and that indifferently. For this reason I determine to call them *intercurrent*; so that, whatever I have learned concerning either their nature, or their treatment, will appear in what follows.

They are scarlatina, pleurisy, bastard peripneumony, rheumatism, erysipelatous fever, angina, with the addition, perhaps, of a few more.

2. Now each and all of these diseases are accompanied by fever; either wholly or up to a certain point, viz. until the elimination of the febrile matter has taken place. This varies with the disease. Sometimes it discharges itself in one part, sometimes in another. Hence, I have no hesitation in considering the fever itself as the primary disease, and that all those other affections, from the character of which the diseases, respectively, take their names, are symptoms referable to one of

two things—to either peculiar character of the crisis, or to the part to which the disease attaches itself. Nevertheless, provided that we can agree about the facts, the name may be left to itself. I hold myself free to describe the disease under the one name as well as the other.

3. It must be remarked that, just as those stationary fevers concerning which I have already written, take more or less of an epidemic character according to the constitution of the years, and according to the degree in which the mysterious and inexplicable conditions of the atmosphere influence them, so do these intercurrent fevers take an epidemic character also; not to the same extent with the others, but still they take one. However much they may, in certain cases, originate in some particular anomaly of some particular bodies, whereby, in some manner or other, the blood and humours take a taint, they still, at times, are indirectly due to some general atmospheric influence. This it is which acts upon the human body by certain of its sensible qualities, and this it is which disposes it towards the generation of such and such forms of dyscrasy in the blood; these being the *immediate* causes of the fevers in question. For instance, when the frost lasts too long; and when winter, often encroaching upon spring, is followed by a sudden change from hot to cold, pleurisies, anginæ, and similar diseases set in; and this they do, irrespective of the general constitution of the year. Now, since they occasionally become epidemic, just as much as the epidemics of the true sort, I shall keep the two kinds separate, by calling those which, instead of being determined by a certain series of years, are common to all years alike, fevers of the *intercurrent* species.

4. Much as these two forms may differ from one another in respect to their origin in atmospheric influences, they agree in respect to several of their external and predisposing causes. Laying contagion out of the account, which occasionally gives origin to the stationary form of fever, and laying also out of the account intemperance, which is the mother of both forms, the commonest external and evident cause of most fevers is either premature change of dress, or exposure to cold after exercise. This closes the pores suddenly, and causes the retention of those exhalations which escape through the breathing-holes of the skin: so that those forms of fever are kindled in

the blood, which the general constitution of the atmosphere, or the particular febrile dyscrasy, particularly and potentially, determines. For my own part, I think that more die from this than from plague, war, and hunger, put together. Let a medical man only inquire carefully as to the origin of an acute disease. Nine times out of ten, he will hear that the patient has either changed his usual warm dress for a cold one, or exposed his body to sudden cold after he has heated it by exercise. For this reason I invariably recommend my friends never to change any part of their dress to which they have grown accustomed until a month before the summer-solstice; and, for the same reason, I press upon them with equal energy the necessity of carefully avoiding cold when heated by exercise.

5. Here I must carefully remark, that although most, if not all, of the diseases, which I here call *intercurrent*, be real and essential diseases, there are several affections resembling them in their symptoms, and bearing the same names, which are neither more nor less than mere symptoms superadded to the *stationary* fevers. With these, we must follow a different method from the one appropriated to an essential disease, viz., the treatment of the particular fever present, or the fever whereof these are the symptoms—the symptoms themselves being but lightly treated. As a general rule, we must look to the constitution of the year, and see what is the best way of subduing it, whether by venesection, or sudorifics, or by any other method. Act hap-hazard, in this respect, and you blunder, to the jeopardy of your patient.

Now, if any one object that these very affections, which I call essential, are, nevertheless, nothing more than symptoms, I answer, that they may, perhaps, be symptoms in respect to the fever to which they particularly appertain, but that they are at least, symptoms of those fevers which invariably and necessarily produce them. For instance, the fever of essential pleurisy is of the sort which always falls upon the pleuræ, and the fever of quinsy one which always falls upon the fauces. So on with the rest: whereas, when any of the above-named affections supervene upon a fever which is referable to a peculiar constitution of the year, depending upon this, the connexion is an accident, and by no means a matter of necessity. This is a broad line of demarcation between the two.

6. In order to duly distinguish more clearly between the essential and symptomatic diseases, the best way we can do is to remember, that whatever may be the symptoms which accompany the access of any stationary fever, they are exactly those which follow the attacks of pleurisy or angina as long as they are the accidents only of such a fever. This could be clearly seen in the symptomatic pleurisy above mentioned, or the pleurisy which, in 1675, supervened upon the fever of the previous winter. All that suffered, suffered first in the head, back, and limbs; these being the symptoms which were most constant to the non-pleuritic fevers which preceded, and which characterised them to their close. On the other hand, whenever any of these intercurrent diseases is essential, it comes on in the same manner, in all years, having nothing in common with the prevailing stationary fever of the period. Furthermore, just in proportion as there is no admixture of the phenomena of other fevers, their symptoms come out clearer, and are less liable to either obscurity or confusion. Again, the time of the year wherein *some* (not all) of the essential intercurrents appear, occasionally suggests the class to which they belong.

The diagnosis of these, and other diseases, comes easiest to him who has, by the most diligent and assiduous observation, so closely investigated their phenomena that he can tell, at sight, to what genus they belong; and this he can do when the characteristic distinctions are too delicate to be expressed in words to a second person.

7. Now, since the different species of these fevers originate in peculiar inflammations of the blood, different for different diseases, I make my whole practice turn upon its regulation and moderation; I vary my method with the ailment, and apply to the elimination of the morbific matter that treatment which experience has appropriated to each kind of disease. The full and perfect practitioner is he who knows how the febrile matter enters the system and how it is to be ejected; whether by bleeding, by sweating, or by purging. This is the result of careful consideration to the phenomena of the disease itself, and to the phenomena of its therapeutics.

CHAPTER II.

SCARLET FEVER.

1. Scarlet-fever (*Scarlatina*) may appear at any season. Nevertheless, it oftenest breaks out towards the end of summer, when it attacks whole families at once, and more especially the infant part of them. The patients feel rigors and shiverings, just as they do in other fevers. The symptoms, however, are moderate. Afterwards, however, the whole skin becomes covered with small red maculæ, thicker than those of measles, as well as broader, redder, and less uniform. These last for two or three days, and then disappear. The cuticle peels off; and branny scales, remain, lying upon the surface like meal. They appear and disappear two or three times.

2. As the disease is, in my mind, neither more nor less than a moderate effervescence of the blood, arising from the heat of the preceding summer, or from some other exciting cause, I leave the blood as much as possible to its own despumation, and to the elimination of the peccant materials through the pores of the skin. With this view, I am chary both of bloodletting and of clysters. By such remedies, I hold that a revulsion is created, that the particles inimical to the blood become more intimately mixed therewith, and, finally, that the proper movement of Nature is checked. On the other hand, I am cautious in the use of cordials. By them, the blood may be over-agitated, and so unfitted for the regular and equable separation in which it is engrossed. Besides which, they may act as fuel to fever.

I hold it, then, sufficient for the patient to abstain wholly from animal food and from fermented liquors; to keep always indoors, and *not* to keep always to his bed. When the desquamation is complete, and when the symptoms are departing, I consider it proper to purge the patient with some mild laxative, accommodated to his age and strength. By treatment thus simple and natural, this ailment—we can hardly call it more—is dispelled without either trouble or danger: whereas, if, on the other hand, we overtreat the patient by confining him to his bed, or by throwing in cordials, and other superfluous and

over-learned medicines, the disease is aggravated, and the sick man dies of his doctor.

8. This, however, must be borne in mind. If there occur at the beginning of the eruption either epileptic fits, or coma—as they often do occur with children or young patients—a large blister must be placed at the back of the neck, and a paregoric draught of syrup of poppies must be administered at once. This last must be repeated every night until he recover. The ordinary drink must be warm milk with three parts water, and animal food must be abstained from.

CHAPTER III.

PLEURISY.

1. No disease is more frequent than this: besides which, it is a disease of all seasons. Nevertheless, it is commonest about the change from spring to summer. At that time, the blood is heated by the fresh vicinity of the sun, breaking out into inordinate action, and effervescing without stop or check. Pleurisy affects sanguine temperaments, labouring men from the country,

"duro jam fractos membra labore."[1]

Chills and rigors usher it in. These are succeeded by heat, thirst, inquietude, and the other too-well known symptoms of fever.

Generally, after a few hours—though frequently much later—the patient is seized with a sharp, pricking pain, in the side or in the region of the ribs, which shoots sometimes towards the shoulder-blades, sometimes towards the spine, sometimes towards the front of the chest. The cough is frequent and distressing. It arises from the tension of the inflamed parts, and is accompanied with so much pain, that the patient holds his breath, and checks the first inclinations towards it. The matter brought up by expectoration is, at the onset of the disease, scanty and thin, and, frequently, streaked with particles of blood: but, as the

[1] Horat., Sat. i, 1, 5.—[G.]

disease proceeds, it becomes more copious, and more concocted; still, however, mixed with blood. The fever proceeds *pari passu:* indeed, it takes strength from the symptoms to which it gives origin. And this fever as well as its concomitant evils, its cough, its bloody sputum, and its pain, decreases gradually, and decreases just in proportion to the free expectoration of the morbific matter.

2. This same morbific matter, however, does not always, during the progress of the disease, attain that degree of concoction which is necessary for expectoration. It frequently happens that the thin and scanty sputum of the beginning of the disease is coughed up throughout: in which case, neither the fever nor its symptoms receive one iota of amendment, and the patient dies. Sometimes the bowels are confined, sometimes too open, the dejections being frequent and very watery. At times the disease gains strength (venesection having been omitted), so that the patient cannot even cough, suffers from a terrible dyspnœa, and is all but suffocated by the violence of the inflammation. This is sometimes so great, that the chest cannot be expanded to the dimensions of a natural respiration without the most exquisite pain. At times—and this, again, from the omission of the proper venesection—suppuration takes place, and pus is effused in the cavity of the thorax. In this case, however much the primary fever may abate, (and it may abate altogether,) the patient is still in danger. He may die miserably, worn down by the empyema and the hectic fever that succeeded the original disease.

3. Now, although pleurisy naturally originates in a proper and specific inflammation of blood, an inflammation which engenders it as a primary disease; it may, nevertheless, supervene as an accident to other fevers, whatever be their kind; the febrile matter being precipitated upon the pleuræ or the intercostal muscles. When this happens, it happens at the beginning of the disease, and arises from the crude state of the febrile matter. This ought to be tempered by appropriate ebullition, and to be prepared for its due separation through more appropriate passages. Generally, however, this form of mischief arises from the unseasonable and preposterous use of over-heating medicines; medicines which are the favorite prescription of certain women of rank, whose charity and benevolence would be better

employed in feeding the poor than in physicking them. As far as these ladies act upon any plan at all, they act with the view of promoting perspiration at the onset of the fever, little thinking of the temerity and inefficiency of the attempt. They just disturb Nature, who is constrained to the expulsion of the peccant matters during their state of crudity,

"Quâ data porta ruunt."

This throws them on the meninges of the brain, and thence comes a frenzy; or it throws them on the pleuræ of the ribs, and thence comes a pleurisy. The more the season of the year, i. e. the turn from spring to summer, and the age and temperament of the patient favour this last-named state of things, the more likely is the disease to be pleuritic. It is an undeniable fact, that, at the season in question, fevers have a tendency to become pleurisies.

4. Now if a pleurisy has been, as it were, precipitated after the fashion noticed above, we can make a shrewd guess as to the fact by the colour of the blood of our venesections. This blood, at least that of the second and following bleedings, as soon as it has grown cool, looks like melted suet in regard to its consistency, whilst its upper layer looks like true pus. Yet it is no true pus, notwithstanding. It is fibre; the fibre of the rest of the blood; fibre forming a close tissue. It is not separable like pus. If removed from the remaining mass, it looks like tenacious and fibrous cuticle. It is, probably, neither more nor less than the fibres of the blood, deprived by precipitation of their natural red investment, and coagulated by the contact of the cold atmosphere into a whitish membrane.

I must remark, by the way—if the blood, instead of being projected from the vein in a horizontal line, flows downwards along the skin of the patient, however freely it may flow, it will not take the appearance that I have described. Why this is I know not. Neither is the patient relieved by a bloodletting of the kind in question. Finally, even when the other conditions occur, if the blood be prevented, either by the smallness of the opening, or by any other obstacle, from being let out in a full free stream, it will not be the true blood of pleurisy, and it will not be a benefit to the patient. I have also observed, that, let the blood be let out as it may, if, whilst fresh drawn, you stir it

with your finger, it will be red and florid at the surface, just as it is in other diseases.

Be the blood, however, what it may, the disease, although it has a bad name, may be treated with success, if it be treated with skill. Medicine can save as many men from the jaws of death, in cases of pleurisy, as it can in any others.

5. After attentively considering the various phenomena of this disease, I think that it is a fever originating in a proper and peculiar inflammation of the blood;—an inflammation by means of which Nature deposits the peccant matter on the pleuræ. Sometimes she lays it on the lung itself, and then there comes a peripneumony.

Peripneumonies differ from pleurisies in degree only. They exhibit the results of the same cause with greater intensity.

6. In my treatment I have the following aim in view,—to repress the inflammation of the blood, and to divert those inflamed particles, which have made an onset upon the lining membrane of the ribs (and have there lit up so much mischief) into their proper outlets.

For this reason, my sheet-anchor is venesection. As soon as I am sent for, I bleed from the arm to ten ounces or more. Immediately after the bloodletting, the following draught is to be taken:

℞ Poppy-water, ℥iv;
Sal prunella, ʒj;
Syrup of violets, ℥j.
Mix, and make into a draught.

At the same time I prescribe the following emulsion:

Seven sweet almonds;
Melon-seeds,
Gourd-seeds, āā ʒss;
White poppy-seeds, ʒij.
Pound together in a marble mortar, and pour in gradually—
Barley-water, half a pound;
Rose-water, ʒij;
Sugar-candy, ℥ss.
Mix, and make into an emulsion; of which four ounces are to be taken every four hours.

I also order pectoral medicines to be taken frequently. The following are samples:—

℞ Pectoral decoction, lb. ij;
Syrup of violets,
Syrup of Maidenhair, āā ℥ss.
Mix, and make into an apozem; of which take half a pound three times a day.

℞ Oil of sweet almonds, ℥ij;
Syrup of violets,
Syrup of Maidenhair, āā ℥j;
Sugar-candy, ʒss.
Mix, and make into an eclegma, *secundum artem*. To be taken frequently during the day.

Oil of sweet almonds, alone, or linseed oil, providing it be fresh drawn, is often very useful.

7. As to diet, I forbid meat altogether; and at the same time, meat-broths, however weak. The patient is allowed only barley- and oatmeal-gruel, and panado. His drink is a ptisan of barley-water, with the root of the wood-sorrel, or liquorice-root. Sometimes he has a little well-hopped small beer.

Besides this, I order the following ointment:

℞ Oil of sweet almonds, ℥ij;
Pomade ointment,
Marshmallow ointment, āā ℥j.
Mix, and make into a liniment; to be rubbed on the side affected night and morning. Cover the parts so rubbed with a cabbage-leaf.

To this treatment I adhere throughout the whole course of the disease.

8. The day on which I am called in, in case I find that the pain be oppressive, I order the same quantity of blood to be drawn; the same again the next day, and the same again on the third day. I even go on to the fourth, so that, unless the patient previously recover, he has, in cases where the pain and other symptoms are very violent, four continuous bleedings. If, however, either a less intense and a less dangerous form of the disease be present, whereby I am allowed to go at an easier rate with my remedies, or a dejection of strength on the part of the patient, will not bear bloodletting in such quick sucession, I remain satisfied with the second venesection, without caring to repeat it, except after the interval of a day or two, between each. In all this, I take for my rule the contra-indications, and these are, on the one side, the mildness of the disease, on the other, the diminished strength of the patient.

Now, although I like, in the treatment of diseases, to leave myself free to take away more or less in the way of bloodletting, according to the circumstances of the case, I have, nevertheless, rarely observed that a confirmed pleurisy, in an adult subject, has been cured with the loss of much less than forty ounces of blood. In boys, however, one or two bleedings has generally been enough. As to the diarrhœa that sometimes supervenes, it not only is no bar to the bleeding, but it sometimes stops it.

9. Enemata I either wholly omit, or else give at long intervals between the bleedings, and at most, of only sugar and milk.

10. During the disease, I look that the patient be not overheated, and I allow him at once to get up every day from his bed, and that for a few hours, just as his strength inclines him. In this sort of disease, it is of great importance that he be not continually bound down to his bed. If he be, neither free evacuations of blood, nor any other remedies, however cooling, will tell at all upon the aforesaid symptoms.

11. Soon after the last bleeding, if not before, all the symptoms improve, and the patient, who, for some days longer, must still be forbidden spirituous liquors, and heavy food, will soon resume his strength. At this time it is not out of place to solicit the bowels by a mild cathartic.

12. Now if any one be surprised that this method fails in even touching upon the expectoration, and much more in giving the details by which it should, at different times be promoted, he may be informed that the omission is not referable to neglect. The point has been well considered, and has been passed over designedly. It has ever been my opinion, that those who will intrust the elimination of the disease to expectoration, play a dangerous game. *Periculosæ plenum opus aleæ*—There is danger, and there is delay. Oftentimes the morbific matter may have been partially concocted, and may have been rejected by the way of an anacatharsis, whilst the remaining may remain crude; and that in succession, and after the use of even the best expectorants, since expectoration is a process that may at one time go on well, at another, be wholly suppressed: the sick man being meanwhile endangered, and, as far as my control, which is none, over the expectoration is concerned, being either for life or death. On the other hand, by means of bleeding, the morbific matter becomes my subject, and

opening in the arm does the work of a windpipe. Moreover, I constantly insist, that whilst a pleurisy, if treated after the manner that I have just condemned, is one of the broadest and easiest of the ways to death, it is, under its proper method, as certainly and as safely destroyed as any other ailment, to say nothing about the short time taken up in destroying it. Never have I known any mischief from the large detraction of blood, though unskilful men may think otherwise.

13. I have often tried to think out some plan of cure for pleurisy, without such an expense of blood, either by means of resolving the humours, or of promoting expectoration. I have, however, failed in finding any treatment like the aforesaid. As for that, notwithstanding the unfavorable prognosis of Hippocrates, in the case where the pleurisy is of the *dry* sort,[1] I can always make it save the patient, independently of expectoration, so that the same bleedings shall let out the disease, and let in convalescence.

14. But as the chief cure in this disease consists in an operation which is too much in the hands of unskilful barber-surgeons (especially in country places remote from towns), there is frequently the danger to the unhappy patient, of the loss of a limb, or even of life from the pricking of a tendon. To meet this accident, I subjoin the following line of treatment.

15. When a patient is thus pricked he does not feel the pain till about twelve hours after the bleeding; and that, not in the parts about the opening, but in the tract between it and the axillæ. This pain is most felt when the arm is extended. The immediate locality of the injury swells to about the size of a hazel-nut, and lets out a dribbling ichorous fluid, the discharge of which is preeminently diagnostic of a punctured tendon. I have seen with my own eyes that the proper treatment is as follows:—

℞ Roots of white lilies, ℥iv.
Boil to softness in two pounds of milk from the cow. Then take of
Linseed,
Oatmeal, āā ℥iij.
Strain the milk in which the roots were boiled, and boil therein the two sorts of meal, to the consistency of a cataplasm. Apply this night and morning to the affected parts.

[1] Αἱ ξηραὶ τῶν πλευριτίδων καὶ ἄπυστοι χαλεπώταται.—Coac. Præn., iii. [G.]

CHAPTER IV.

BASTARD PERIPNEUMONY.

1. As the winter comes on, and oftener still as it is going off, and as spring is approaching, there comes to light, every year, a fever marked with numerous peripneumonic symptoms. It attacks, by preference, the stout and fat, those who have reached, or passed, the heyday of life, and those who are over-addicted to spirituous liquors, brandy more especially. The blood of these men becomes loaded, during the winter, with an accumulation of phlegmatic humours; whilst, as spring approaches, it is excited to a new motion. Then cough takes occasion to set in, and administers to these same phlegmatic humours, and determines them to fall upon the lungs. And now, if the patient shall have lived carelessly, and if he still keep on drinking freely, the matter which has excited the cough grows gross, blocks up the passages to the lungs, and preys upon the whole mass of the blood in the shape of fever.

2. At the first attack, the patient is hot and cold by turns, is giddy, and complains of a shooting pain in the head, as often as the coughing becomes importunate. He vomits up what he drinks, sometimes coughing, sometimes not. The urine is turbid and intensely red, the blood the blood of pleurisy. He pants for wind, and draws his breath frequently and by jerks. If he be inclined to cough, his head feels as if it would split, and so he describes the feeling. The whole chest is in pain, and the wheezing of the lungs may be heard by the bystanders as often as the sick man coughs, since the lung is unable to dilate itself sufficiently, and its intumescences shuts up the vital passages. This intercepts the circulation; and the blood being, as it were, smothered, there shall be (as there often is with stout people), an absence of the signs of fever. This same absence of the signs of fever may also arise from the excess of phlegmatic matter, which must so clog the blood as to disable it from rising to a full and sufficient ebullition.

3. In treating this fever, I make it my business to divert from the lungs, by means of venesection, the blood which creates

the suffocation, and which lights up the inflammation. The lungs themselves I clear and cool with pectoral remedies; and by the help of a cooling diet I moderate the heat of the body at large. Now when it happens, on the one hand, that this sink of phlegm is lodged in the veins, is day by day supplying fuel to the fire of inflammation, and is, in consequence, appearing to indicate a frequent repetition of venesections, whilst, on the other hand, the most careful observations that I have been able to make, have taught me that such repetitions, with patients of gross habits, and with patients who have passed the prime of life, are the origin of much mischief, and when this latter fact dissuades me from bloodletting no less than the former conditions may indicate it, I say that in such cases I purge freely, and make such purging supplementary to the venesection; a substitute which is rightly applied in those cases that will not bear a large and repeated loss of blood.

4. Hence, I proceeded as follows: I kept my patient to his bed, bled him as he lay in it, and forbid him to get up for two or three hours. This I insisted upon, because, whilst all losses of blood to a certain extent, shake and weaken the frame at large, this is the method for making them most tolerable. The patient who lies in bed, will suffer less from a ten ounce bleeding, than one who is up, from a bleeding of only six or seven ounces. The next morning the following draught must be taken:

℞ Extract of cassia, ʒj;
Liquorice, ʒij;
Fat figs, iv;
Senna-leaves, ʒiiss;
Agaric lozenges, ʒj.
Boil in water q. s. Strain to four ounces. Dissolve in the strained liquor,
Manna, ʒj;
Solutive syrup of roses, ʒss.
Mix, and make into a draught.

5. The next day I bleed again, then miss a day, and repeat the aforesaid purging drink. And so I bleed and purge, and purge and bleed, till the patient get well. Such days as I do not purge, I recommend the pectoral decoction, sweet oil of almonds, and the like. Meat, and meat-broths I forbid, and, still more strongly, spirituous liquors; in the place of which, I

allow the patient, as his usual drink, a ptisan of barley-water and liquorice, and, if he particularly request it, a little thin small beer.

6. By this method can we overcome that bastard peripneumony, which originates in the over-abundant collection of phlegm, accumulated during the winter, and breaking out upon the lungs; a disease wherein we must purge as well as bleed. In the true peripneumony we must not do this. The true peripneumony is of the same nature as a pleurisy, except that it affects the lungs more universally. The true peripneumony and the true pleurisy are treated alike, that is, by bloodletting; by bloodletting in preference to cooling medicines, and to medicines of any other sort whatsoever.

7. This bastard peripneumony, although it somewhat approaches a dry asthma, and that in regard to the difficulty of breathing, as well as other symptoms, is still easily to be distinguished. The bastard peripneumony has fever, the asthma none. Yet the fever of the bastard peripneumony is far less than the fever of the true.

8. Now this must be carefully noticed, viz. that when the patients who are struggling with the disease have been addicted to brandy and such like liquors, it will be unsafe to deprive them of the same too suddenly. It must be done by degrees. By this means there is less likelihood of the abrupt change paving the way to a dropsy. The same applies to all diseases thus originating. And now, as I am speaking of brandy, I will make a remark by the way. It were well if that spirit were either wholly banished, or limited to the restoration (not the extinction) of the vital spirits. Some may go farther, and propose the entire abandonment of it for internal uses, confining it to surgical cases; i. e. as a dressing for the digestion of sores, or as an application in burns. For these, it bears the bell from all other remedies. It defends the underlying skin from putrefaction, and, so doing, effects a quick cure, so quick as not to wait for the naturally slow and leisurely process of digestion, and the stages of digestion. Lint dipped in brandy, and applied, immediately after the injury, to any part of the body that shall have been scalded with hot water, or singed by gunpowder, will do this, provided that, as long as the pain last, the spirit be renewed. After it has fairly ceased, once or twice a day will be sufficient.

CHAPTER V.

RHEUMATISM.

1. This disease may come on at any time. It is commonest, however, during the autumn, chiefly attacking the young and vigorous—οἷς γόνυ χλωρόν.[1] It generally originates in some such cause as the following. The patient has been heated by either some over-violent exercise, or by some other means, and has taken cold upon it. The sad list of symptoms begins with chills and shivers; these are followed immediately by heat, disquietude, thirst, and the other concomitants of fever. One or two days after this (sometimes sooner) the patient is attacked by severe pains in the joints, sometimes in one and sometimes in another, sometimes in his wrist, sometimes in his shoulder, sometimes in the knee—in this last joint oftenest. This pain changes its place from time to time, takes the joints in turns, and affects the one that it attacks last with redness and swelling. Sometimes during the first days the fever and the above-named symptoms go hand in hand; the fever, however, gradually goes off whilst the pain only remains; sometimes, however, it grows worse. The febrile matter has, in that case, been transferred to the joints. This is clearly proved from the fact of the fever being frequently lit up afresh after the driving in of the morbific matter by the unseasonable use of external remedies.

2. This disease, when separate from the fever, is often called *arthritis* (*gout*). Nevertheless, it differs essentially from that disease, as every one knows who knows the two diseases well. This confusion may perhaps explain why it is that medical writers have passed so lightly over rheumatism; unless, indeed, we chose to suppose that the long list of human ailments has lately been increased by a fresh addition. Be this as it may, there is plenty of the disease now-a-days; and, although it very rarely, when once the fever has been driven off, kill the patient, it is still, from the vehemence of the pain, and from its protracted duration, no contemptible distemper. Treat it badly,

[1] Theocrat., Idyll. xiv, 70.—[G.]

and it will last for months and years; nay, it will torment a patient throughout his miserable lifetime.

Its violence, indeed, may vary; so that, after the fashion of gout, it may come on at odd times, and in periodic fits. This, too, may happen after the aforesaid pains have been long, violent, and afflicting. Then they may cease of their own accord: the patient, however, shall be a cripple to the day of his death, and wholly lose the use of his limbs; whilst the knuckles of his fingers shall become knotty and protuberant (as in gout), with the knots showing most on the inside.

With all this, the stomach shall be strong, and the patient be sound in other respects.

3. There is another species (although it is not generally so considered) of rheumatism. This may well be called rheumatic lumbago. Rheumatic lumbago consists in a violent fixed pain in the lumbar region, sometimes stretching as low as the sacrum. Except that the patient is not sick, an attack of lumbago simulates an attack of the kidneys. Over and above the violent and almost intolerable pain about the kidneys themselves, the course of the ureters from the kidney, even to the bladder, is painful as well; the pain, however, being milder. This course of the pains originally deceived me, for I used to think that it depended on some gravelly matter adherent to the parts. Nevertheless, it was neither more nor less than the inflammatory and peccant matter of rheumatism, which had left the other parts of the body and afflicted these alone. This pain, unless got rid of, like the pain of the common rheumatism, is equally excruciating, equally persistent. The miserable patient cannot lie his length; but either leaps from his bed, or sits in it upright, rocking his body to and fro, now backwards and now forwards, sometimes bent, sometimes drawn up, but always rocking himself painfully.

4. Now both the sorts of rheumatism arise from inflammation. No one doubts the inflammatory nature of pleurisy, and the blood of rheumatism is as like the blood of pleurisy, as one egg is like another. Hence, the cure is to be sought in bloodletting. Meanwhile the blood is to be tempered, and its fervour is to be repressed, by cooling and thickening medicines, and by proper regimen.

5. As soon as I am sent for, I draw blood from the arm of

the side affected, to ten ounces, and then prescribe the following julep:

℞ Water of water-lilies,
Purslain-water,
Lettuce-water, ää ℥iv;
Syrup of lemons, ℥ss;
Syrup of violets, ℥j.
Mix, and make into a julep; to be taken *ad libitum*.

Sometimes I order the emulsion for pleurisy[1] instead.

To allay the pain, I take care to apply a white bread-poultice, made with milk and saffron, or else a cabbage leaf to the part affected. As to the diet, I forbid, equally, meat, and meat-broths, however weak and thin; substituting in their stead, barley-broth, oatmeal-gruel, panado, and the like. For ordinary drink, I allow nothing stronger than a little thin small beer, or (what is better), a ptisan of barley, flavoured with liquorice or sorrel. I also like the patient to be out of bed for a few hours every day, since the heat of a continual confinement will promote and aggravate the disease.

6. The following day I order the same amount of blood to be drawn, and a day or two after, according to the strength of the patient, I bleed again. Three or four days after this, I bleed for the fourth time, and this fourth bleeding (respect being had to the strength, age, constitution, and other conditions of the patient) is generally the last. I rarely bleed a fifth time, unless there have gone before, either too hot a regimen, or too hot medicines. Now *anodynes* and *paregorics* require to be accompanied by very free bleedings indeed; hence, if I mean to cure the disease by bleeding alone, I abstain, during all the stages of a rheumatism, from their use. They fix the disease, and render it less amenable to bleeding; an operation which the over-officious use of anodynes renders necessary, oftener than would be the case otherwise. Besides this, they by no means always make good their title of *anodyne*.

7. During the careful application of the aforesaid remedies and diet, I now and then throw up a clyster of sugar and milk, on the day when the patient is not let blood. I even insist upon all these points being attended to, for eight days at least,

[1] Chap. III, § 6.—[G.]

after the last bleeding. Afterwards, I order a mild cathartic draught to be taken in the morning, and a full dose of syrup of white poppies, out of cowslip-water, the evening after. This restrains the orgasm of the blood, and guards against a relapse. All this being properly attended to, I allow the patient to return, by slow degrees, to his usual way of living, in respect to air, exercise, and food, cautioning him, nevertheless, against wine, spices, salt meat, and all indigestible aliments. These he may not touch for a long time afterwards.

8. After the bleedings, to the number aforesaid, the pains will be much lessened. They will not, however, wholly go off. They will only do this when the strength, that has been lost along with the loss of blood, shall be made good again. This recovery will take place quickest at the approach of the next season of the year—a season which conduces more to the restoration of the patient, than the one in which he sickened. Under these conditions, the symptoms will one and all disappear, and the convalescent grow as strong as a wrestler.

9. Now, although the foregoing method, or one like it, will, if applied at the beginning of the disease, determine a favorable conclusion, it still happens, and that frequently, that, where the patient has been badly treated, and treated after a wholly contrary fashion, he will be troubled during the remainder of his life with wandering pains, sometimes mild, sometimes severe; which pains easily deceive the incautious, and pass for the symptoms of scurvy. Now upon this point I will speak by the way, and I will speak freely. That scurvy is rife and common in the northern countries, I admit; that it is so common as is generally believed, I doubt. Many of the cases of the so-called scurvy are cases of disease in the process of formation; many of disease imperfectly subdued. The first have yet to take their type and character; the latter have yet to cease contaminating the blood. For instance, the fresh matter that is about to generate gout, until such time as it has fallen upon the joints, shows itself in symptoms, that pass for the symptoms of scurvy. Yet when once gout has been formed, and has exhibited itself by act and deed, no one mistakes it for anything but itself.

10. I know, too, that many symptoms, like the symptoms of scurvy, attack really gouty patients, after they have rid them-

selves of the gouty fits. This may arise from the unseasonable use of evacuants, from the effects of old age, or from any other cause that may have interrupted Nature in her attempt to unload the arthritic matter, in its full entirety, upon the joints. Such matter, retained, yet useless, corrupts the whole mass of the blood, and distresses the patient with bad symptoms upon bad symptoms.

This applies to incipient dropsy as well as to departing gout. The saying of the vulgar is as follows: *when scurvy ends, dropsy begins.* Now this only means that when a dropsy has fairly shown itself by clear signs, the preconceived notion of a scurvy falls to the ground. The same applies to many other chronic diseases; whether they be yet in a state of growth, and waiting to take their type and character, or partially dispersed, yet not wholly subdued and exterminated. Unless we admit this, the term scurvy will take an undue extension (as it really does nowadays), and comprise nearly every sort of disease. If, however, we carefully exert ourselves in the close investigation of diseases, follow them to their secret hiding-places, lift up the veil that disguises their symptoms, and see them in their own true forms, there will be no difficulty in distributing them according to their proper families: always remembering, that the method of cure is the method for the disease as it exists in its full and perfect form, and in its real acts and deeds, and not the method of any adulterate and counterfeit symptoms.

11. And here I may remark, that when the rheumatism has taken deep root, and is of some years' standing, it is not so well to bleed at short intervals, as it was at the onset of the malady. It is better to separate the venesections by intervals of a few weeks. This will be enough to drive away the disease, or, at least, bring it to the point when issues in either leg, or draughts of any volatile spirit, taken morning and evening out of canary wine, will extirpate its relics.

12. Now, however great may be the difference between true rheumatism and true scurvy, there is a sort of the former disease which cannot be denied to approach, both in respect to its symptoms and its cure, the latter. And this I shall call scorbutic rheumatism. The pains come sometimes in one part, sometimes in another; they seldom occasion much suffering, seldom are attended with fevers. They are less fixed to one spot, are more

erratic, and more uncertain; their accompanying symptoms being anomalous, and disorderly also. At times it afflicts this or that joint; at times the inward parts only. Here it produces suffering, which suffering goes off when the pain again transfers itself outwardly. Thus it harasses the patient by turns, and prolongs itself to the duration of the most chronic amongst the chronic diseases. It seizes chiefly women and weakly men; so much so that, were it not for its resistance to hysteric remedies, it might pass for a sort of hysteria.

13. Those who have used the Jesuit's bark for a long time together are liable to this affection; and I may state, by the way, that it is the only mischief I have seen arise therefrom. Whether, however, this or any other cause have given rise to the scurvy in question, the following recipes will easily cure it; recipes of which I would have made a secret, had I not thought more of the public good than of my own private emolument. By means of these alone I have cured many whom bleedings, frequently repeated, had failed to cure; and with whom purges, and milk diets, and testaceous powders, had been just as useless. Here they are—

℞ Conserve of garden scurvy-grass (fresh), ℥ij;
Conserve of wood-sorrel, ℥j;
Compound powder of cuckoo-pint, ʒvj;
Syrup of oranges, q. s.

Fiat electuar. Of this take two drachms three times a day for a whole month, washing it down with three ounces of the following water:

℞ Leaves of garden scurvy-grass, eight handfuls;
Leaves of brooklime,
Leaves of water-cress,
Leaves of sage,
Leaves of mint, āā four handfuls;
The peel of six oranges;
Bruised nutmeg.

Steep in twelve pounds of Brunswick mum, and distil off in a common still six pounds.

The dose of the compound powder of cuckoo-pint must be strictly observed; at any rate, it must not be diminished.

CHAPTER VI.

ERYSIPELATOUS FEVER.

1. This disease attacks any and all parts of the body, at any and all seasons of the year. The face, however, is its more particular part, and the summer its chief season. The patient is taken whilst out of doors. His face swells suddenly; and the swelling is accompanied with exceeding pain and redness. It is also marked by thick patches of very small pustules. These enlarge from inflammation, and gradually become vesicular, spread along the brow and head, close up the eyes through their puffiness and magnitude, and, with the exception of the presence of pustules, are not very unlike the swellings which are left by the stings of wasps or bees. This is the common and usual form of erysipelas. The country people call it a *blight*.

2. Whatever be the part of the body, and whatever be the time of year, there is generally the combination of chills and shivers. These attend the inflammation, unless, indeed, they have preceded it, which they sometimes do by two or three days. Besides these, there are thirst, inquietude, and the other symptoms of fever. As the disease goes on, the fever produces pain, swelling, and other symptoms, which day by day increase, and sometimes terminate in gangrene. These, in their turn, react upon the fever, until restrained by appropriate remedies.

3. There is another form of this disease, although one of rare occurrence. It comes on at any season of the year, but is chiefly referable to the circumstance of the patient having over-indulged in the use of the more thin and fiery wines, or else in some similar spirituous liquor. The fever leads the way. A crop of pustules follows, and covers the whole body. These are like the stings of nettles. At times they rise to vesicles. At times they recede under the skin, like tubercles; in which case they itch intolerably, and show themselves afresh as often as they are scratched, be the scratching ever so slight.

4. I consider that, in this disease, peccant matter is mixed with

the blood, and that it must be evacuated. Also, that the ebullition of the blood must be regulated by cooling remedies; also that matter which has become impacted in the parts must be discussed and eliminated.

To do this I bleed from the arm forthwith, and I find the blood like the blood of pleurisy. The next day I exhibit my usual mild cathartic, and, at bedtime, in case the patient has passed too many motions, a paregoric draught, such as syrup of poppies, out of cowslip-water, or something of the sort. The purging being over, I foment the part with the following decoction:

℞ Marshmallow root,
Root of white lilies, āā ℥ij;
Mallow-leaves,
Elder-leaves,
Mullein-leaves, each two handfuls;
Melilote-flowers,
St. John's-wort-tops,
Tops of the lesser centaury, each a handful;
Linseed,
Punigreek-seeds, āā ℥ss.

Boil down, in a sufficient quantity of water, to three pounds. Strain the liquor. Add, when wanted for use, two ounces of spirits of wine to every pound of the decoction. Apply stupes of warm light flannel, soaked in the mixture, and well wrung, twice a day to the part affected. After the fomentation, anoint with

℞ Spirits of wine, lb.ss;
Venice treacle, ℥ij;
Long pepper (powdered),
Cloves (powdered), āā ℥ij.

Mix. Apply on blotting-paper to the part affected.

5. In the meanwhile, the patient must live on barley-broth, oatmeal-gruel, and roasted apples. He may, moreover, take a little of the smallest beer, and leave his bed for a few hours daily. To this method the fever, with its symptoms, will generally give way in a short time. If not, I bleed a second time, and sometimes even a third time. This I do at the interval of a day; provided, also, that the blood remain in a bad diathesis, and that the fever be kept up. On the day when I omit the venesection, I order an enema of milk and syrup of violets, and cooling juleps of lily-water, as in rheumatism, the juleps being taken every hour. Generally, however, the single bleeding,

and the subsequent purgation, if applied in time, carry off the complaint.

The erysipelas which looks like nettle-stings may be similarly treated, except that it requires less in the way of external applications.

6. I may now make a remark by the way. Although the affections of which we are speaking, as well as the generality of those which attack the skin, and are accompanied with an eruption, provided that they be chronic, easily give way to this treatment, and take themselves off after the repetition of a purge and venesection, there are others, of the same kind, which must be treated in a manner wholly opposite. With them, there is no good in repeated evacuations, and no hope in testaceous powders for the sweetening of the blood; inasmuch as certain recrementitious matters, of a bad diathesis, are attached so closely to the skin, that they are attacked and removed only by those medicines which give strength and tone to the blood, and which have the property of acting as deobstruents upon the pores of the skin. In virulent pruritus, and in cutaneous eruptions akin to it, I resort to the following treatment, and I derive from it no common success:

℞ Venice-treacle, ʒss;
Egg electuary, ϑj;
Virginian snakeroot (finely powdered), gr. xv;
Oriental bezoar, gr. v;
Syrup of candied citron, q. s.
Make into a bolus; to be taken every day, night and morning, for three weeks.

Along with this drink, six spoonfuls of the following julep:

℞ Aquæ cardui Benedicti, ℥vj;
Plague-water,
Treacle-water, ää ℥ij;
Syrup of gilliflower cloves, ℥j.
Mix, and make into a julep.

7. Every morning, after his physic, the patient must sweat for an hour or two, or, what is better, let him be in bed, cover himself with extra blankets, and perspire moderately. After this, if the pustules still remain, the following liniment must be applied to the parts affected:

℞ Ointment of the water-dock, ℥ij;
Pomatum ointment, ℥j;
Flowers of sulphur, ℥iij;
Oil of rhodium, ♏x.
Fiat linimentum.

These medicines must not be used, except after bleeding and purging, operations which, although they do not, by themselves, effect the full and perfect cure, still protect the patient against the fever that would, otherwise, arise from the use of heating medicines.

8. There is another form of eruption, which is less frequent than the present ones, and wholly unassailable by evacuations. It may appear anywhere. Generally, however, it appears on the breast, fixes itself on some particular part, just, or hardly, rises above the skin, spreads in a broad patch, is sometimes porriginous, sometimes furfuraceous, and has its squamulæ of a colour approaching to yellow. Whether this be a macula or an impetigo, a spot or a tetter, the patient does well as long as it is out. When, however, it goes in, as it often does, he suffers a slight degree of disorder, and his urine becomes turbid, and of a red, or rather reddish-yellow, colour. In treating this, we follow the treatment of virulent scabies—the same remedies, the same general evacuations, and the same order of exhibition. Besides this, wine and digestible animal food are allowable; indeed, the use of refrigerants is more bad than good. Thus is this last form of disease cured. At times, however, nothing will cure it, except the prolonged use of chalybeate waters.

CHAPTER VII.

QUINSY.

1. This comes on at all seasons of the year, but most during the transition from spring to summer. It attacks young persons most, especially if they be of a sanguine temperament, and (an observation I have often made) have red hair. Chills and shivers usher it in. Fever follows. Next come pain and inflammation of the fauces, and unless these last symptoms be speedily relieved, the patient becomes unable to either swallow his food or breathe through his nostrils; whilst the fauces are closed with a feeling of strangulation, the uvula, the tonsils, and the larynx all being swollen, and all but suffocation being induced. Great is the danger of this ailment. At times it kills within a few hours. In such cases an excess of febrile matter has been thrown upon the above-named parts, and the impending storm has been insufficiently met by appropriate management.

2. I bleed freely from the arm, and also from each side of the tongue. I then touch the parts inflamed with the honey of roses, made as sharp as possible with spirits of sulphur. Besides this, I order the following gargle, and I order it after a manner different from the one in common use, by recommending it to be kept quietly in the mouth until it grow warm, when it is to be spit out, and renewed:

℞ Plantain-water,
Red rose-water,
Frog-spawn-water, āā ℥iv;
White of egg beaten upon water, ℥iij;
White sugar-candy, 3ij.

Fiat garyarisma.

Finally, I add the daily use of the emulsion for pleurisy, or of some similar one.

3. The next day, unless the fever and pain in swallowing have, in some degree, abated, I bleed again from the arm, postponing the purgative for the day following. If, however, there

be a diminution of both symptoms, I order a lenitive electuary at once. This, after venesection, is of pre-eminent value, and, as I have ascertained by manifold experience, of paramount necessity. Very rarely, indeed, do the fever and other symptoms cause alarm after this. If they do, they are to be arrested by bleeding, and a strong large blister to the nape of the neck. Throughout the whole course of this disease, an emollient and cooling enema is to be thrown up every morning on those days when no purgatives are given. In this way is the patient to be supported.

4. Meat of all sorts is forbidden; and so are all meat broths. Barley-broth, oatmeal-gruel, and roasted apples are allowed. So are ptisans and barley, and so is the smallest of small beer. The bed may be left for a few hours every day; since the warmth of it helps the fever, and helps those other inflammatory symptoms which I take so much trouble to allay. In respect, however, to the angina (*quinsy*) which is a symptom of the stationary fever, it must be treated in the same way as the fever itself is treated, either by diaphoresis and action through the pores of the skin, or by any other form of treatment adapted to the primary fever. This I have verified by careful observation.

5. Besides these, there are other fevers of the class of *intercurrents;* but as these go off directly in some different manner, and terminate in some particular symptom, they are not commonly termed fevers. Nevertheless, they are such in origin. The affection from which the disease takes its name is only a symptom of some fever terminating therein. Two of these are all that I shall at present mention, and that slightly; viz. hemorrhage from the nostrils, and hæmoptysis.

6. Bleeding from the nose comes on at any and all times of the year. It attacks subjects of hot blood and a weak temperament, and that more in the decline of life than in its spring. At the first attack, it shows like fever. This makes its way through the nostrils—

"Quâ data porta ruit."

During its escape there are pain and heat, and distress in the front of the head. The blood flows on for some hours; stops for a while; breaks out afresh; stops and breaks out again. At length it leaves off of itself altogether, either under

the effects of remedies, or else from having become diminished and exhausted. The patient, however, may expect an annual relapse, as often as his system becomes inflamed by either spirituous liqours, or any other exciting causes.

7. This is what I aim at. The heat and ebullition of the blood are too great. From this arises unnatural extravasation, and for this reason it is to be restrained, and its impetus is to be diverted elsewhere. With this view, I bleed frequently, and freely, and I find that the blood is the blood of pleurisy. The diet I order is refrigerant and inspissating—three parts water to one of milk, boiled, and drunken cool, boiled apples, barley-broths, and other vegetable forms of food; cooling and thickening juleps, and those emulsions which have already been described as remedial to inflammation. The bed may be left for a short time every day. A lenitive and cooling enema must be thrown up every day; never, by any chance, omitted. Finally, by a draught of the paregoric of diacodium, the fury of the blood may be kept within limits, as by a chain. When, however, as is often the case, hemorrhages of the sort in question are accompanied by an acrid lymph, which mixes itself up with the blood, and opens the orifices of the veins, over and above the revulsive and refrigerative treatment, I prescribe a mild cathartic, and that even at the height of the disease. When this has done acting, I follow it up with an anodyne of full strength, and somewhat more. When the symptom has wholly vanished, I give a cathartic again.

8. In respect to external applications, the best are linen rags, doubled twice, steeped in cold water with sal prunella, and afterwards lightly wrung out, to be applied to the nape, and to both sides of the neck, several times a day. After the evacuations are completed, the following mixture should be applied:

℞ Hungarian vitriol,
Alum, āā ℥j;
Plegma vitriolicum, lb.ss.

Boil until all the matters are dissolved. Cool, and filter. Separate the crystals. Add to the remaining liquor a twelfth part of the oil of vitriol. Wet a plug of lint in the solution, and place it in the nostril from whence the blood comes. Leave it there for two days.

Rags steeped in this liquor stay blood from all parts of the body equally.

9. Hæmoptysis attacks subjects of warm but weak temperament—subjects whose lungs are weak, young men rather than old; and it attacks them most between spring and summer. It has most of the characters of the last-named hemorrhage. Both are fevers, and both throw off their name and essence under the influence of the crisis by which they are resolved. The chief difference lies in the difference of the parts to which the blood is determined. In the former disease, they are the nostrils; in the latter, the lungs. In the one case, the head is the seat of the pain; the lungs suffer in the other. Heat and pain characterise the bleeding from the nose; weakness of the chest attends the pulmonary hemorrhage. The method is nearly the same in both cases, except that the lung-affection admits of less purging than the other, since hyper-catharsis may throw the patient into a decline. Instead of this, however, we may bleed frequently, may throw up daily injections, may prescribe an opiate at bedtime, and may support the patient by means of an inspissating and refrigerant regimen, both in regard to his medicine and his diet.

10. And this is what I have, up to this time, observed concerning that numerous tribe of diseases, which, falling into many families, is called *fever*. These are my observations upon fever and its symptoms. In stating them I have seriously been on the guard against any imaginations of my own. I have dealt in no fancies. In a candid and sincere spirit, in a spirit free and unrestrained by hypotheses, have I published their natural history and their symptoms; and, if I have added their treatment, I have added it in a similar spirit of good faith and caution. And if the ardent desire of first discovering and then establishing some methods of protecting human life, more certain and less unsteady than the methods hitherto applied, shall have drawn me forward into fresh paths, and into paths that none before have trodden, I hope and trust that men of true learning will impute to me neither the contempt for the better judgments of other men, nor the love of new fashions in practice. I take great courage from the results that have, as yet, confirmed my investigations; and I trust to posterity as a witness for the future.

A murderous array of disease has to be fought against, and the battle is not a battle for the sluggard. Day by day

is there the combat against the life of man, and there is neither truce nor quarter. Many die by violent deaths; but, with the exception of these, two thirds of our race die of fevers. Continuous attacks, and daily victories over strong men in the flower of their age, on the part of the disease; inefficient resistance, and specious, though confident, speculation on the part of the physician—these it was that dissatisfied my reflections, and showed me the worthlessness of the vain crotchets of fanciful men, when the question was a question of lost health seeking restoration; and when, in the face of the promises of braggart dogmatists, those patients who had recourse to such assistance, fared neither better nor worse than if the resources of art had been neglected altogether, and their trust had been put in Nature alone.

Now, if I shall have done anything towards diminishing the risk, or even towards lightening the difficulties which occur in the treatment of these diseases—and I allow myself to hope that something *has* so been done—I have gained the object that I had in view. My hard labours are rewarded by the good that I have done my neighbour.

These are—there or thereabouts—the chief points which I have made good concerning the fevers, and the symptoms that arise out of them, up to the present date, i. e. December 30, 1675: at any rate, they are the chief points that I have been able to reduce to any method.

Δόξα τῷ ἐν ὑψίστοις ΘΕΩι.

APPENDICES.

In the editions of 1666 and 1668 there are several passages which are omitted in the improved edition of 1685. These are given with great care in Dr. Greenhill's Latin text. Sometimes the propositions contained in such passages are merely verbal, whilst sometimes they have a value as illustrations of the history of Sydenham's opinions. Where they are of this latter character, they will be found translated, more or less closely, and more or less fully, in the following Appendices. For the more minute purposes of bibliography, reference to the original text is necessary.

Appendix A.

Section I, Chapter IV, § 40; pp. 56 and 65 of Dr. Greenhill's edition.—"What I have hitherto laid down in the way of therapeutic admonitions, are more especially adapted to that species of fever which is more especially general and familiar. Besides this, there are other species mutually differing from each other, with various points of difference generated by the irregular constitutions of certain years. To reduce these into classes according to the variety of their phenomena, to work out their idiopathic characters, to accommodate to each in detail its proper method of cure—this is a work requiring much opportunity, a work of great difficulty, and the work for which the life of a single physician might possibly be insufficient; since the accumulation of observations must needs be large, and the order of years for the appearance of the same epidemics is uncertain. Within my own experience, the more remarkable forms of fever, and the forms requiring any notable difference of treatment, are two in number: one the commoner sort, which we have just dealt with; the other the pestilential fever, which we shall deal with anon.

"In my mind the diversities of treatment, which arise from the diversities of season in different and sometimes even in identical years, are just as worthy of notice as the diversities which arise from the different temperaments of different patients. I have even thought that among the chief reasons for the fluctuations in the treatment of fevers, and for the failure of efforts of learned men, this was one, viz. that practitioners have applied observations grounded upon the successful treatment of one or more fevers, of this or that season, to all the fevers of

all seasons of all years indifferently. Now this I believe to be just as dangerous as it would be dangerous to treat the peculiar temperaments of different patients similarly and promiscuously.

"In the first place, I must treat upon the various modes of cure which apply to the various fevers of various years. Here we must weigh steadily the following fact, viz. that, however much we may allow of other differences from other causes between fever and fever, their chief difference consists in the difference between the subject matter to which the febrile commotion is inherent; whilst this difference itself coincides with the different diatheses of the blood, according as such diatheses are induced by the season of the year. The febrile commotion of a spring fever is the febrile commotion of blood in its full freshness; that of an autumn fever, the commotion of blood in its decline, and of blood impoverished by the heat of the preceding season. Now, just as the invasion of a fever is regulated by the nearness or distance in time between these two seasons, so does the fermentation that it engenders coincide with the fermentation of this or that part of the year. Now this agrees with what I have observed in practice, viz. that autumnal fevers are more dangerous and of a worse character than spring fevers. Autumnal fevers are the fevers of an impoverished blood, and for this reason will ill bear evacuations—especially in the way of bloodletting. No matter how beneficial such evacuations might have been in spring, autumn forbids them.

"Perhaps this degeneration, originating as it does in poverty of blood, and occurring along with autumnal fevers, may give rise to a general depravation of the humours at large. This, too, may beget the symptoms of ill-conditioned fevers; nay, even ill-conditioned fever itself. Now, in such cases, Nature becomes excited to action, exerts herself against the disease, and undertakes its elimination by the means of a fresh ebullition. Now this ebullition the physician must sustain by cordials, rather than depress by evacuations and refrigerants. It is the instrument of Nature. Be the corruption of the blood what it may, if the necessary ebullition cannot be both *got* up and *kept* up, the disease will be either protracted or deadly.

"To return to the subject. In autumnal fever, blood must be drawn charily; and in all cases where the patient is either below the age of adolescence or beyond the heyday of life, not at all. Except in cases of excessive heat or robust youth, refrigerants are dangerous; whilst vomiting (especially if there have been nausea) is necessary.

"In spring fevers, blood may always be drawn, and, with young subjects, freely. Clysters and refrigerants, too, are very useful in all cases where the patient is young, the fever obstinate, and the previous venesection has not been over frequent. Hard bellies and swollen feet have never been observed by me as the sequelæ of spring fever, whether *continued* or *intermittent*. Both, however, are common with autumnal ones; and more particularly where blood has been overdrawn, or where the patient has been too young or too old. The swelling of children is generally that of the belly. With adults it is the feet that swell first. Then, as the case may be, the belly follows, and dropsy sets in.

"Proceeding from the difference between fever so determined by the

difference of years, and the difference of treatment as determined by the difference of the fever, we come to the causes of such differences. Now these cannot be laid down. A year may be epidemic, not only in respect to plagues, but also in respect to fevers of only ordinary malignity; the reasons being referable to neither depraved aliments nor putrescent exhalations of the lower atmosphere, nor yet to inordinate and unequal changes from hot to cold, or from cold to hot. In such cases, we must confess our ignorance, and admit only a blind, inexplicable, and malignant constitution of the atmosphere.

"Now, just as we have no principles by which we can explain the difference between the fevers of different years, so we have no means of judging from the healthiness or unhealthiness of a past season as to the healthiness or unhealthiness of a coming one. The winters of 1662 and of 1663 differed from each other, in the fact of the one being extraordinarily mild, and the other being wonderfully cold. Yet each followed a mild autumn, preceded by a mild summer.

"From my own practice, I know of only two observations by which we can, during the current summer, prognosticate the healthiness or unhealthiness of the autumn that is to follow—of the healthiness or unhealthiness in respect to fevers.

"If fevers, continued or intermittent, appear unnaturally early, the season that follows will be exceedingly favorable to the development of epidemics. By *early* I mean on or before Midsummer-day. If the fever be of the quartan kind (i. e. of the kind which is the true blood of autumn), this will be the case all the more. In 1661, when, over and above the continued fevers, malignant tertians took off whole families, a female neighbour of my own was taken with her first quartan ague-fit on the 24th of June. Many more were similarly and prematurely attacked by the same fevers, that afterwards prevailed so epidemically; a proof that, in the temperature of the atmosphere of that time, there were the preliminaries of the diseases that set in so thickly the year after.

"I have remarked that, if swarms of insects, especially house-flies, were abundant in the summer, the succeeding autumn was unhealthy. This I observed to be the case during the whole summer of the aforesaid year (1661); whilst in the summers of the two following years, which were very healthy, the insects were very few. Still I must remark, that at the approach of even so severe a disease as the plague itself, they were not observed to be very abundant.

"With these two exceptions, I have observed that all prognostics are fallacious, so that the foreknowledge of the character of a coming epidemic constitution is very difficult, and not marked by any conspicuous signs.

"Nor is it less difficult to propose any certain and determinate principle of treatment, which shall accurately answer to the difference of fevers dependent upon the different temperament of the year, than it is, as aforesaid, to explain the causes of the annual differences themselves; or even to predict, by means of any previous prognostic, the difference between this year or that in the matter of healthiness or unhealthiness. However, I shall not think it too much trouble to explain, in a few

words, those things which have presented themselves to my attentive observation.

"In such autumnal fevers, as occur at an over-early period, under a constitution particularly epidemic (i. e. in quartans or malignant tertians that show themselves as soon as Midsummer-day), bleeding is dangerous. The autumn of the year aforesaid proved this. Unless the patient were of an age and vigour to bear it easily, bleeding did mischief, especially at the beginning of the season. It might not indeed cause death; but it did cause a protraction of the distemper. Other evacuations were not equally dangerous; emetics, in particular, being useful then, as they were useful in other similarly malignant constitutions. All which has taught me the importance of the physician being ready and willing to adapt himself to the very varied circumstances of a very changing scene. I allow myself, however, to add that, in the way of a general *method* of treatment, what has preceded is of sufficient scope and latitude—notwithstanding the extent to which changes of years and season forbid the exhibition of over-stringent rules

'Quos ultra citraque nequit consistere rectum.'

The best that can be done, when a fever first sets in, is to observe the character of its access, and the *juvantia* and *lædentia* in the way of treatment. Do this, and I think that the aforesaid method will not be found far from the mark. In my own hands there has been but little deviation from it, at least in such fevers as it best suits; i. e. in fevers where a due fermentation is Nature's best instrument, and wherein such due fermentation, in order to expel the latent peccant matters, must duly be kept up."

Section I, Chap. V, § 29.—The substance of a statement contained in the editions of 1666 and 1668, and not occurring in the edition of 1685, will be found in that portion of the Life of Sydenham which contains the account of the *use of cinchona bark in intermittents*. See p. 80 of Dr. Greenhill's edition.

Section III, Chap. II. Extracts from the editions of 1666 and 1668. See Dr. Greenhill's edition, pp. 149-152.—"Now, as it is usual in writing upon fever to touch upon measles and smallpox also, I will tread in the steps of my predecessors. I shall, however, include both diseases under the head of smallpox, partly for the sake of brevity, partly because the treatment is alike. This is the case, notwithstanding the difference of their nature, a point upon which I shall say nothing for the present.

"I think the smallpox is a disease superinduced upon the blood during an attempt at a new status. Human blood is a rich and luxuriant liquor containing many rich juices, and remaining unchanged for no long time together. Now, once during a lifetime, this liquor throws

Appendix B.

Section III, Chap. II, § 33. In the editions of 1666 and 1668.—"I have no hesitation in saying, that from this source originates a whole catalogue of ills. The ebullition at the beginning of the disease sets in with violence; and the nurses are over-handy with their cordials, with Gascoigne's powder, diascordium, and the like. With these they hope (God willing) to expel the smallpox at once, and to remove the poison from the heart. They use with equal hardihood another remedy, of great fame, and (as they think) safe—I mean posset, with hartshorn and marigolds. More mischief is done every year by this heating regimen than by any medical treatment, however apparently dangerous, and however abhorrent from the principles of reason, meaning thereby their own views." (Page 131 of Dr. Greenhill's edition.)

Section III, Chap. II, § 36. In the editions of 1666 and 1668.—"In the next place, if the effervescence of the blood shall have become so sluggish as to give just reason for fearing that it may be incompetent to a due separation, we may promote it by cordials. These are fittest under the following conditions: excessive previous depletion, a fat plethoric habit, previous disease, present evacuations, present gonorrhœa. In any such cases as these, the secretion will fall short, unless held up by cordials. Hence the eruption of pustules will fail, and the patient die. I believe, for my own part, that such an upshot is not to be referred to any *malignity* whatever. It is simply the inability of the blood to carry out the change and renovation of itself that it has taken in hand. Its state is morbid; its position precarious. It cannot go back to its first state. It cannot make good its attempt at a new one—*magnis excidit ausis.* I admit, however, that at the very time of expulsion, when the secreted matter comes to suppuration, if, from any reason, the same be thrown inwards, the recession causes certain death. Now this *does* arise from corruption, viz. the corruption of the secretion itself." (Page 132 of Dr. Greenhill's edition.)

Section III, Chap. II, § 59.—"If bleeding cannot be resorted to, either from hesitation on the part of the physician, or from the youth or age of the patient, the heat of the distemper must by no means be increased. For this reason, the patient must be as much out of bed as he would be when in health, and (weather permitting) there must be no fire in the room. Small beer, warm, with a toast in it, oatmeal gruel, roasted apples, and the like, must be his meat and drink. Anything stronger, even hartshorn posset, I forbid. Thus the ebullition will gradually, and spontaneously subside, and the symptoms decrease before mischief sets in, provided always, that the blood be but moderately exasperated, and tolerant of the respite required." (Dr. Greenhill's edition, p. 145.)

Section III, Chap. II. Extracts from the editions of 1666 and 1668. See Dr. Greenhill's edition, pp. 149-152.—"Now, as it is usual in writing upon fever to touch upon measles and smallpox also, I will tread in the steps of my predecessors. I shall, however, include both diseases under the head of smallpox, partly for the sake of brevity, partly because the treatment is alike. This is the case, notwithstanding the difference of their nature, a point upon which I shall say nothing for the present.

"I think the smallpox is a disease superinduced upon the blood during an attempt at a new status. Human blood is a rich and luxuriant liquor containing many rich juices, and remaining unchanged for no long time together. Now, once during a lifetime, this liquor throws off, like a slough, its native habit and texture, adapts itself for undergoing so notable a change, and (so to say) puts on a new form. I think that I see a reason why blood, not so changed already, changes easily. A slight impulse determines it—the effluvia from sick men—even as ripe apples ripen the apples that hang next to them. The same happens with other bodies, whether their surfaces touch, or whether they influence one another from a distance. The case is the same with the blood; indeed, the other bodies just mentioned are less prone to change than the pre-eminently changeable blood. This principle accounts for the contagion of smallpox, as well as any doctrine founded upon its malignity. Nay, it involves fewer complications than are involved in the idea of a malignant and poisonous matter, lurking in the blood, and expelled from the same. I cannot see how, as it were, in a single moment of time, any man's blood can, by simple contagion, be supplied with that large amount of purulent matter that is secreted in smallpox. Neither can I understand, upon the notion of malignity, how it is that a patient, once affected, can mix with other patients sick of the smallpox with impunity. This is not what we see in other diseases. Connexion with a diseased female infects with *lues* those who have previously been diseased, and those who have not; the liability being the same on both sides.

"I am not ignorant that persons have been attacked twice with smallpox. The fact, however, is too rare to affect the general statement, that one attack ensures against another.

"As for the impurity and foulness of the excreted matters in all forms of smallpox (and in autumnal poxes most), it proves no more than is proved by the fact of contagion. The blood, having taken in hand a change and renovation, selects a certain amount of particles belonging to its mass, and these, although pure enough whilst mixed with the blood at large, become, by aggregation, and the adoption of a new texture, depraved and corrupt, after a depraved and corrupt fashion. This is the case of parts of the food taken into the stomach—they undergo a change.

"The depressions of the pock-marks (autumnal and winter ones more especially) prove as little. All ulcers leave deep marks behind them.

"As a further proof that the true cause of smallpox is no pre-existence in the blood of poisonous particles, and no irritation creating the

expulsion of the same, but that it is the effort of the blood to bring about a certain change, I adduce the following observation:—I have seen persons, not deeply marked, nor yet deformed by the pock-marks, but yet changed in the whole character of their features, lineaments, and bodily frame. This looks as if the intervention of the smallpox had effected that full and perfect renovation which Nature designed.

"Now as to whether this be the origin of smallpox, or whether it be capable of any better explanation, I will not enter into further controversy. The treatment rests on the following principles:—viz. that there is a matter for separation and expulsion, and, unless separation and expulsion take place, death takes place instead.

"If ptyalism supervene, which it often does with grown-up people, and after the use of cordials and a hot regimen, our chances improve. Previous bad treatment has been made good by this symptom. The disease, deflected from its natural outlet, escapes thus. Hence, if we keep up the salivation, we may be easier about the pustules. This, however, we must bring about in a laudable manner. Beware of checking or disturbing it. Abstain from gargles, for gargles have checked the spit, and killed the patient. All that I allow him is, that he may, if necessary, rinse his mouth with a little warm small beer.

"As the pustules dry up and fall off, the patient must be freely purged; more especially after an autumnal smallpox.

* * * *

"Let no one blame me for writing thus at large when the two simple words *do nothing* would suffice. I would fain spare myself the trouble of a long exposition, were it not that I find my opinion to lie at equal distances from the two opinions that have hitherto prevailed among men. The first considers bleeding as imperative; and follows up the bleeding by such refrigerant medicines as may repress the ebullition of the blood. The other vehemently inculcates the use of a hot and cordial regimen, under the notion that such is the guidance of Nature, and that such is the proper effort for forcing the malignity of the disease from the centre to the circumference of the frame. Now an opinion without grounds would have been absurd, whilst the concealment of my sentiments would have been dishonest; since each of the other modes of practice has killed enormous quantities of patients."

Appendix C.

Section VI, Chap. III, § 1. In the editions of 1666 and 1668.—"I am aware that it is a received opinion that that kind of continued fever which accompanies pleurisy is considered to originate from inflammation falling upon the lining membrane of the chest, and the parts of the heart. Hence, in respect to the pleurisy, it is a symptom rather than a substantive disease. I find no fault with this view. Meanwhile, I also believe that the pleurisy itself is sometimes a symptom; and that in respect to the original fever by which the patient was first seized, anterior to the supervention of the pleurisy. After this, the fever lays aside its original character, and becomes converted into a pleurisy; whilst the pleurisy, from the access of fresh inflammation, generates, as its accompaniment, a new fever. This goes *pari passu*, and stands or falls with the pleurisy. I believe that, after a due examination, it would be a hard matter to find a single instance of that undoubted sign of pleurisy, viz. pain in the side, having set in without some fever or other, little or much, having preceded it. True as it is that the pain occurs, it occurs *after* the fever, sometimes sooner, sometimes later,—but still *after* the fever. Perhaps, in doing so, I may be humoring my own peculiar doctrine; nevertheless, as far as I may rely on my observations, I consider the pleurisy as an *accident and a consequent to the fever*." (Page 276 of Dr. Greenhill's edition.)

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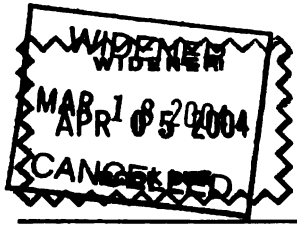

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